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Vol. XL, Series 1

THE UNIVERSITY RECORD

of the

UNIVERSITY OF FLORIDA

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BIENNIAL REPORT

OF THE PRESIDENT

of the

UNIVERSITY OF FLORIDA

to the

BOARD OF CONTROL

FOR THE BIENNIUM
ENDING JUNE 30
1944

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REPORT OF THE PRESIDENT OF THE UNIVERSITY

To the Honorable Board of Control of
State Institutions of Higher Learning of Florida.

GENTLEMEN:

My last biennial report covered the period embracing the beginning of the war and certain adjustments that were made necessary at the University because of that fact. During the biennium closing June 30, 1944, the complete facilities of the University were involved in the war effort. At the same time, the entire program of service to civilians was kept intact. The details of all activities are set forth in the reports of Deans, Directors, and other administrative officers. I shall confine myself to the principal features and some of the high lights of the period, attempting in short compass to summarize this critical two-year interval. The period was one of constant readjustment and intense activity, and the University carried on, under most difficult conditions, with more success and less impairment of its normal functions than could have been anticipated.

In the early stages of the war, the enrollment did not fall so rapidly as might have been expected. In the academic year 1941-42, which marked the opening of hostilities, 3,239 students were enrolled in the regular session and 3,202 in the summer terms. During the biennium under consideration the enrollment began to drop, and this tendency was greatly accelerated by the amendment of the Selective Service Act which reduced the induction age to eighteen years. Deferments were granted to a limited number of students who were preparing for certain critical occupations in the fields of engineering, physics, chemistry, and other technical areas essential to the best conduct of the war. Aside from these deferred students, available material for civilian programs at the University of Florida was confined to boys with physical disabilities, others under eighteen years of age, and a few women. By the end of the biennial period there were fewer than a thousand civilian students on the college level in the University. To these were added about five hundred students in the P. K. Yonge Laboratory School.

During the biennium the policy of the administration has been to hold together the staff of the University as effectively as possible while making the maximum contribution to the war effort, and preserving intact all of the services demanded for civilians. The reduced enrollment and the demand for trained personnel by the armed forces made it possible to grant many members of the staff leaves of absence for service in the armed forces or in war production activities. A high degree of flexibility has been maintained and, apart from the loss of some members of the staff who left the University for more remunerative positions, the integrity of the institution has been preserved.

A principal factor in carrying out the above policy has been the ability to use our facilities in large measure for assisting in the winning of the war. In my last report I described a Chemical Warfare School, the Civilian Pilot Training Program carried on in cooperation with the Civil Aeronautics Administration, and other war efforts. Our war activities have been greatly expanded during the biennium under discussion. Three extensive training services, including an Officer Candidate School, an Army Air Forces Air Crew Training Program, and the Army Specialized Training Program for engineers and technical personnel, have been operated by contract with the War Department.

The Extension Services, both General and Agricultural, have carried on enlarged programs, and wartime research has been stepped up tremendously both in engineering and in agriculture. Some of this research is confidential and may not be revealed until the war is over.

TRAINING PROGRAMS

On September 28, 1942, an Officer Candidate School was activated at the University of Florida for the purpose of training officers who would serve the Army in an administrative capacity. There were about six of these schools in the country, the third of which was established at the University of Florida. Over 1,300 officers were instructed at and graduated from this School, nearly all of whom are now actively serving in the Army. The School was operated directly in cooperation with the Adjutant General's Office, War Department, and received high commendation from the War Department.

Following negotiations with the Army Air Forces, in February, 1943, there was activated at the University a program for the training of air cadets with a quota of 750 trainees. Beginning with the following May, and continuing with reasonable regularity with the graduation and replacement of approximately 150 trainees monthly until the close of the program in June, 1944, the University served in the training of 2,994 members of the Air Forces. The University was responsible for the academic instruction and physical training demanded in the program, while officers and men of the Air Corps were assigned to the detachment to provide over-all supervision for the program and specific responsibility for the military training. The academic program consisted of mathematics, physics, history, geography, English, civil air regulations, and medical aid. Each trainee also had ten hours of flight instruction.

In June, 1943, there was activated a unit of the Army Specialized Training Program, having as its objective the preparation of technicians needed for the several services of the United States Army. The program at the University, to which 494 trainees were originally allotted, was designed to cover the Basic Phase Curriculum and the Advanced Phase Curricula in Engineering. These were followed by a group of approximately 100 former advanced ROTC students of the University, whom the military authorities returned to pursue their studies and training until openings in Officer Candidate Schools occurred, by nearly fifty trainees in the Preprofessional Curriculum leading to medicine and dentistry, and by allotments of reservists. In all, up to July 1, 1944, the University had enrolled nearly 1,500 men in these various phases of the Army Specialized Training Program. In the Basic Phase Curriculum, the trainees studied chemistry, mathematics, physics, English, history, geography, and engineering drawing; in the Advanced Phase, the trainees pursued those studies usually required by professional schools of engineering, medicine, and dentistry. As with the Army Air Forces, the University assumed responsibility for instruction in the academic subjects and for physical training, while the Commandant and his staff had charge of the military training and discipline.

Mr. Kenneth R. Williams, who was appointed Director of War Training Programs, resigned in May, 1944, and was succeeded by Dr. J. Hooper Wise. The President of the University served as a member of an Advisory Committee consisting of ten college presidents who were asked to cooperate with the War

Department in planning and developing the Army Specialized Training Program.

Although contracts with the Federal Government did not permit profits to be made by the institutions having war training programs, a considerable saving was effected through the absorption by the Government of costs for operation, equipment, instruction, and other necessary functions which otherwise would have had to be paid from State funds. In the training of Air Cadets and in the Army Specialized Training Program a total of more than a million and a quarter dollars was paid to the University by the Government. Of this amount something over $750,000 was expended on operation, on the Cafeteria, Residence Halls, Infirmary, Florida Union, Book Store, and on other service units. During these programs 1,600 men were fed three times a day and all were housed in the University Residence Halls. A sum of $527,238.07 was transmitted to the State Treasury for payment of salaries, use of facilities, and depreciation on buildings and equipment. There was a net saving on the University budget of $205,333.36, of which $135,907.00 was used to balance the budget. A large reduction in anticipated income from student fees was brought about by the drop in enrollment. Details of finances during the biennium are set forth in the report of the Business Manager, but it may be noted in passing that there was a balance of $69,426.36 available to the University from the two programs as of June 30, 1944.

These programs enabled the University to retain the services of most of its faculty and to utilize its plant facilities during the period when it experienced its lowest civilian enrollment. Through the extra funds made available by the programs, an opportunity was provided for paying the staff for overloads carried, and some increases in salary were made possible. Without these increases, there would have been considerably more sacrifice on the part of the staff, and the number of persons leaving the University for more remunerative employment would have been much larger.

There were other training programs, including pre-radar courses, in which some 150 students were trained in 1942-43.

A very effective and important phase of the training given through the extension service of the College of Engineering was the Engineering, Science, and Management War Training Program, in which approximately 3,000 persons were trained during the first year of the biennium and 2,000 during the second year. Seventy-five sections of thirty-three different courses, ranging from elementary physics and mathematics for high school teachers to postgraduate courses in aircraft engineering, were given. The program was operated in eleven cities of the State in order to spread the benefits of this adult education among as many citizens as possible. This work was conducted under the direction of Professor N. C. Ebaugh, Head of the Department of Mechanical Engineering.

GENERAL EXTENSION DIVISION AND AGRICULTURAL EXTENSION SERVICE

Both the General Extension Division and the Agricultural Extension Service have considerably enlarged their activities during the past two years. The General Extension Division has made a notable contribution to national and civilian defense. Approximately 2,000 men in the armed forces have been given correspondence courses through the University of Florida. The University, through this Division, follows the flag to where they are — to England, India, and

literally to the ends of the earth. G. I. Joe has been offered 352 courses on the college and high school level. Numerous other war activities have been carried on by this Division, of which two were conducted in cooperation with the Adjutant General of Florida. The first involved the registration of workers on the job at Camp Blanding for Selective Service, thereby saving 200,000 vitally important work hours; the second, the coordination of the State Defense Council's training program. Schools were conducted for 1,773 instructors to train the Citizens Defense Corps in fire, gas, and other defense subjects required by the Office of Civilian Defense. By January, 1943, the State Defense Council reported a total of 86,641 persons enrolled.

During the present war the Agricultural Extension Service has been confronted with the greatest responsibilities in its history. In times past its activities have been confined purely to education. Because of the gigantic and essential demand for adequate food supplies, the Congress called upon the Extension Service to undertake the administration of a program providing for the recruiting, transportation, and housing of labor to relieve the shortage brought about by the drafting of farm youth into the armed forces. Under agreement with the United States Department of Agriculture, allocations of funds were made by the Federal Government for this important work. Twenty-six labor camps were provided with a combined housing capacity of more than 13,000 workers, and 3,650 laborers were imported into the State. Of these 1,600 were Jamaicans, 1,200 were Bahamians, and 850 were prisoners of war. These workers have been supplied for the harvesting of citrus fruits, strawberries, potatoes, peanuts, sugar cane, and other Florida crops.

The Agricultural Extension Service has also carried on an Emergency War Food and Conservation Program, under which instructional courses have been given in every community and in rural areas of the State to teach modern methods of canning and preservation of foodstuffs. This was particularly helpful to thousands of families who planted Victory gardens.

During the biennium $275,000 was allocated by the United States Department of Agriculture to the Agricultural Extension Service programs, which were conducted with economy as well as efficiency. As a result, substantial balances were returned to the Government at the expiration of budgetary periods.

RESEARCH

More research has been done at the University during this biennium than at any other time in its history. Much of this research is related to the war effort, particularly in the fields of engineering and agriculture. Engineering research in behalf of the war effort has been subsidized by the Federal Government, and for this purpose approximately $112,000 has been received during the biennium. In addition, the 1941 session of the Florida Legislature appropriated $50,000 per annum for strengthening and developing the Engineering and Industrial Experiment Station. Funds from this appropriation were made available by the Budget Commission in the second year of the biennium. Most of the research being done for the Government is of a secret nature. However, rather outstanding results have been achieved, and these will create pride in all friends of the University when the facts are revealed. For the development of industries and the utilization of the State's products, researches are being carried on in the utilization of lime rock, waste products, particularly in the

field of wood processing and canning, and minerals. The possibility of establishing a ceramic industry in Florida is being diligently explored.

There are two ways in which the State can enrich itself. It must either exploit the wealth created by others or create wealth for itself. Through the Engineering Industrial and Experiment Station the University has been given a fine opportunity for creative research which will upbuild the economic structure of the State of Florida.

Agricultural research has been applied vigorously in the fields of food production and nutrition since these were of major assistance to the war effort.

Not only in engineering and agriculture have there been increased activities in research but with the reduction of teaching loads, which have long been too heavy at the University, the scientific staff of the institution has been enabled to make larger contributions than have hitherto been possible.

STUDENTS AND FACULTY IN THE ARMED FORCES

Through the Alumni Office, a monthly bulletin, *The Fighting Gators*, has been sent to parents of servicemen for transmittal to them in the field. Included each month are news items giving accounts of the activities of alumni in the armed services and listing those reported wounded, taken prisoners of war, or lost by death. At the end of the biennium, it was estimated that there were some 8,000 alumni in the armed services, and actual reports had been received from more than 4,000 of these. About one-half were graduates. Among the graduates 76 per cent were officers, 12 per cent non-commissioned officers, and 12 per cent privates and seamen. Of the non-graduates, 31 per cent were officers, 35 per cent non-commissioned officers, and 34 per cent privates and seamen. One hundred and seventy-eight have been listed as killed in action, fifty-eight as missing, and thirty as prisoners of war.

It is a source of considerable satisfaction that the percentage of former students of the University of Florida who are serving in the war effort is as large as that of other institutions of higher learning. Furthermore, Floridians in all parts of the World War theatre have displayed unusual valor. In part, this is indicated by the fact that 235 have won some 553 decorations. Among the outstanding aces in the Air Corps are Lt. Don Fisher, '41; Captain Robert C. Miller, '40; Captain John F. Bolt, Jr., '41; Colonel John Alison, '35; Captain Herbert H. Long, '42; Lt. Louis A. Menard, Jr., '40; and Captain Sheldon Brinson, '38.

The contribution of the faculty in the war training, extension, and research programs has already been mentioned. As stated in my last biennial report, the University early adopted as a major policy the principle that positions made vacant by leaves of absence or resignations be filled only as emergency or necessity dictated. At the height of the training programs it was necessary to augment the faculty by recruiting additional members, some from beyond the borders of the State. In this way the staff has been kept flexible and has been adjusted to wartime demands. Annual leaves of absence were granted from the outset of the war emergency to members of the faculty and staff who could be spared for services in the war. Some members of the staff, occupying position in critical fields, were requested to remain at the University rather than accept war service. One hundred and forty-eight members of the staff were granted leaves. Of this number 107 entered the armed services, including eighty-six from the instructional staff and thirty-one from the administrative and main-

tenance staff. Five accepted positions related to the war effort, two pursued work towards their doctorates, while twenty-four whose services were not required at the University were allowed leaves for personal reasons. Practically all of those on military leave have commissions in the various branches of the armed services.

CIVILIAN PROGRAM

As previously mentioned, during the biennium there was a decrease in the enrollment of civilian students which was rapidly accelerated by the induction of able-bodied boys down to the age of eighteen years. However, the Army trainees, together with the civilian students, substantially increased the enrollment until, during the second year of the biennium, there was a total enrollment of 4,717 students, the greatest number of any year in the history of the institution.

All colleges and departments of the University were kept open and no educational opportunity was denied civilian students. Student activities continued on an abbreviated scale for the most part. Student government, the Honor System, most of the fraternities, intramural athletics, and the usual activities were continued. Intercollegiate sports were discontinued in the year 1943-44. Some of the fraternities became dormant and their social activities were reduced to a minimum. During a part of the period under survey the University leased some of the fraternity houses and made them a part of the Residence Hall system for the use of civilian students. This adjustment was necessary because the Army trainees occupied the campus Residence Halls.

HONORARY DEGREES

At the 1944 Commencement of the University of Florida, honorary degrees were bestowed upon two outstanding alumni of the University and one scientist of great renown. The honorary degree of Doctor of Science was conferred upon Dr. Thomas Barbour, Director of the Harvard Museum of Comparative Zoology, Mr. Herman Gunter, Director of the Florida Geological Survey, and Mr. Eugene Terry Casler, Assistant Manager of the Florida Phosphate Division, International Minerals and Chemical Corporation.

BUILDINGS AND EQUIPMENT

The War Department paid the University 4 per cent on the value of buildings which were used in the war training programs. These funds, added to those available from State appropriations, have enabled us to keep the plant in exceptionally good condition and even to improve some of the buildings. While the shortage of labor has, to some extent, hampered our maintenance service, the physical aspect of the University is, on the whole, better than could have been expected after two and a half years of war.

The Legislature, in its General Appropriation Bill of 1941, made provision for the erection of three new buildings at the University of Florida. These included: (1) an addition to the University Library, $150,000; (2) a College of Business Administration Building, $150,000; and (3) a Dairy Barn, $50,000. The sum of $80,000 was also appropriated for the rehabilitation of the Agricultural Experiment Station Building. Because of the shortage of materials and labor, it was impossible to erect any of the new buildings authorized. By constant and indefatigable efforts, the rehabilitation of the Agricultural Experi-

ment Station Building, begun in the previous biennium, was sufficiently completed to permit occupancy. The renovated building is of fireproof construction and has a new interior design built into the walls and under the roof of the old building. The available space has been increased approximately one-third. This building was very appropriately dedicated to the memory of Dr. Wilmon Newell, who in 1921 became Director of the Agricultural Experiment Station, as well as Director of the Agricultural Extension Service and Dean of the College of Agriculture. After a period of extraordinary service, Dr. Newell was taken from us by death in 1943.

GIFTS AND GRANTS

The University of Florida, in recent years, has been more fortunate in the recognition of its needs through gifts and grants from private sources than is usual with state-supported institutions. Most of the funds made available to us have come from the foundations. Totaling $130,761.11, they include:

General Education Board for Research in Nutrition, First Half of a $50,000 Grant	$ 25,000.00
General Education Board for the University Library, Second Half of a $40,000 Grant	20,000.00
General Education Board, Work Simplification Project	5,000.00
Alfred P. Sloan Foundation for Project in Applied Economics	28,475.00
State Board of Pharmacy for the Bureau of Professional Relations, School of Pharmacy	7,000.00
Florida Lime Rock Foundation for Experimentation with Lime Rock	15,000.00
Florida Crippled Children's Society for a Special Course in the Summer	425.00
Wallace and Tiernan, Incorporated, Fellowship for Investigations in Chlorination of Water	5,000.00
Florida Federation of Garden Clubs, Horticulture Fellowship	2,000.00
Renewals of the Duncan U. Fletcher and James D. Westcott Scholarships, and the Napoleon B. Broward Fellowship	3,000.00
Renewals of the Sears, Roebuck Agriculture Scholarships	2,305.00
Burpee Horticultural Fellowships for Latin American Students	4,300.00
Vocational Rehabilitation Scholarships	8,256.11
Miscellaneous Gifts, Ranging in Value from $50 to $1,000	5,000.00
	$130,761.11

P. K. YONGE LIBRARY OF FLORIDA HISTORY

Probably the most important acquisition ever received by the University from the standpoint of culture and the advancement of research was the P. K. Yonge Library of Florida History, presented by Mr. Julien C. Yonge, of Pensacola, as a memorial to his father, for many years a member and Chairman of the State Board of Control. No history of Florida, possessing the dignity and scholarship which is worthy of the State, has ever been written. Obstacles which have prevented this have included inaccessability of primary source materials. The Yonge collection consists of a veritable thesaurus of newspapers, maps, pamphlets, books, records, and other materials relating to Florida. It is the largest and most inclusive collection of its kind in existence. One of the conditions of this munificent gift was an agreement by the Board of Control that the collection would be housed as a separate unit in the new wing of the University Library when erected. It has been temporarily placed on one of the floors of the Law Library. The University is already actively engaged in securing increments to this collection, including photostats and microfilms of valuable Floridiana in the Library of Congress.

It is hoped that materials can be brought together rather quickly for an appropriate observance of Florida's Centennial, and that in the course of a few

years a worthy history may be written. No state has a richer tradition and background than Florida, deep-rooted as it is in Spanish, French, and English cultures.

UNIVERSITY PUBLICATIONS

Aside from the researches in Agriculture, the University has always suffered from a lack of resources for the publication of the researches of its staff. It is manifestly wasteful to pay salaries to persons of creative ability and to buy expensive equipment without being able to publish the results of investigations and researches which have great public value. Furthermore, it is a decisive discouragement to those who are capable of making constructive contributions not to have their researches published.

As is evidenced by the fact that the University of Florida was one of the first universities in the South accorded a chapter of Sigma Xi, recognized as the hall mark of unusual accomplishments in the field of scientific research, the staff has turned out abundant results of research through the years, many of which have remained unpublished because of a false economy. Other institutions have often published the results of our scientific endeavors, thus enjoying in part the credit that should belong to the University, and profiting the states beyond our borders. During the biennium the Board of Control, with the support of the State Board of Education, made available from reserves a revolving fund of $10,000 for the publication of worth-while products of the University staff.

PATENT AND COPYRIGHT POLICY

Closely related to the stimulation of research through publication is the policy in an institution which governs patents and copyrights. Until recently the University did not have a well-conceived plan or policy relating to patents and copyrights. During the biennium, regulations covering these matters, based upon studies and recommendations of the University Research Council, were finally established. The patent policy of the University is an epitome of that of the United States Government and similar to that of several other progressive universities. In the achievement of this important stimulus to research, the Governor of the State, the Attorney General, the Chairman of the Board of Control, and others cooperated most effectively.

THE POSTWAR PERIOD

Amid the extraordinary demands made upon the facilities of the University in the war effort, the future has not been overlooked. Various committees have been actively engaged in making studies which will enable the University to move into the postwar period with the prospects of enlarged and more effective programs of service. Ten years ago the freshman and sophomore years of the University curriculum were reorganized in accord with a unified philosophy of education. This gave rise to the General College which is now being adopted in principle by numerous other institutions. The Upper Divisions of the University have been under careful study by postwar planning committees. These plans relate to agriculture, adult education, the social sciences, the biological sciences, the physical sciences, the humanities, including religious education, student health, and other vital matters.

RECOMMENDATIONS

In this report many needs of the University might be chronicled but I will confine myself to two general recommendations.

1. *Plant and Building Requirements.* In the postwar period there is every prospect that the University will be called upon to serve many more students than it has done in the past. The large increase in the population of the State, the suspension of educational opportunities for youth because of the war, the return of large numbers of veterans whose education will be provided for at Government expense, the advertising which Florida has received through the numerous young men who have been stationed in the State in connection with military, naval, or air training programs during the war period, as well as other factors, will provide an unprecedented enrollment. The plant is inadequate to handle 3,000 students. There will be a dire need for classroom space, as well as additional laboratory, library, and recreational facilities.

Therefore, I recommend that the Board of Control urge the Legislature to reappropriate at the earliest feasible moment the amounts for the three buildings provided in the 1941 Appropriation Bill and such additional buildings as may be possible.

2. *Increased Remuneration for Members of the Staff.* Within a decade and a half the State's resources, according to the Comptroller's reports, have practically quadrupled. The annual income from the State has increased from slightly over $33,000,000 in June, 1929, to approximately $118,000,000 in June, 1944. The State funds received by the University in this biennium were only slightly in excess of those available during the first biennium in which I came to the University some sixteen years ago. The 1928-29 State appropriation for the University was $749,152 while the 1943-44 appropriation was $970,425, of which $100,975 was an emergency appropriation to protect personnel in the armed forces and no part of which was used. Accordingly, the increase in State funds during the past sixteen years of my administration was only $120,298. Through the same years in which the State's ability to support the University increased nearly 300 per cent, the actual support of the University by the State increased only about 13 per cent.

The average or median salary at the University of Florida is considerably below that of similar institutions in the United States. Consequently we suffer a continuous draft upon our human resources. As fast as we develop young men who have brains and ability, they are drained off into other parts of the country. Therefore, because the State is in the best financial condition of its history and is better able to support the University than ever before, I recommend that the Board of Control adopt a budgetary request that will enable the University to increase, as far as possible, the remuneration which may be paid to members of our staff who show merit.

CONCLUSION

As usual, at the close of the biennium, I feel deeply indebted to many persons and have no adequate words in which to express my gratitude. I have endeavored so to steer the University through these difficult war days as to preserve the essential elements of a great institution of learning, assist our nation in the most crucial war in history, and plan for a greater University to serve a greater Florida. In these efforts, I have had uncommon cooperation from my colleagues,

both of the administrative staff and the teaching faculty, as well as from the students. These two years have been peculiarly burdensome for members of the Board of Control, because of the almost continuous readjustments in staff and budgetary requirements, not to mention the extraordinary problems arising of necessity from the war situation. I want to thank each of them for his patient consideration and for the constructive help which he has given. Beyond the Board of Control is the Board of Education which has, under the leadership of a Governor who, as an alumnus of the University of Florida, was peculiarly fitted to understand its needs, supported us in every possible manner. And beyond the Board are the people of the State of Florida whose University we are endeavoring to administer. To all of these and others I express my grateful appreciation.

Respectfully submitted,

JNO. J. TIGERT,

President, University of Florida

REPORT OF THE DEAN OF STUDENTS

To the President of the University:

SIR: As a result of the war emergency, several changes have taken place in the Office of the Dean of Students during the past biennium. In particular, it should be noted that Assistant Dean J. Ed. Price was transferred to the teaching faculty where he taught in the war training courses during the regular session. In addition to his teaching responsibilities, he has continued to work as Director of Student Employment and Placement and has guided and counseled students and student groups.

The reduction in size of the student body has created a serious situation with reference to maintaining wholesome student life. The presence of more soldier trainees than civilian students on the campus has, to some extent, complicated student morale. In the interest of maintaining a nucleus in the various phases of extracurricular and non-classroom activities, it has been necessary to work more intimately with student leaders and student groups in order to compensate for the lack of student leadership. The rapid turnover in students caused by accelerated courses and the draft has taken from the student body most of those who naturally would have developed into student leaders. The reduction in student enrollment has not necessarily decreased the need and demand for individual counseling and interviews. On the contrary, wartime conditions have caused a larger proportion of students to seek counsel and guidance.

The following is presented as a summary of important projects and problems:

I. Projects:

A. Revision and publication of the *Bulletin of Information on Scholarships, Loans and Student Employment.* This was reprinted and approximately 3,500 copies were distributed to the high schools in the State.

B. Revision and publication of the Constitution of the Student Body. This publication will be used in lieu of the *"F" Book,* which ordinarily contains the Constitution of the Student Body, as well as the By-Laws and Charters of the student government organizations.

C. Work with the faculty director and staff of *The Florida Alligator.* The publication of this newspaper was made possible through the participation of both civilian students and soldier trainees, and proved to be an asset in maintaining high morale on the campus.

D. Conducting a survey among alumni, faculty advisers, and fraternity officials relative to the postwar needs of fraternities. A six-point plan has been suggested for rehabilitation and improvement.

E. Acting as adviser to the Nellie Swanson Fulk Memorial Cooperative Living Organization, which function included in June, 1944, the transfer of this property from the Board of Trustees to the University of Florida.

II. War Activities:

A. Orientation program for all groups of soldier trainees on their induction into the University for both Air Corps and Army Specialized Training Program students.

B. A religious census of all soldier students, with the denominational list furnished to each of the denominations represented in Gainesville.

C. Supervision of all war fund campaigns on the campus, including the United Service Organizations, National War Fund, and Red Cross drives. This included three of the last, one War Fund, and one USO drive. A total of $14,592.58 was contributed by the faculty and staff of the University.

The operation of the Residence Halls during the period was characterized by heavy and continuous use of facilities by various government units, a large enrollment of civilians when facilities were available, a rapid turnover among civilian residents, continual shifting of property, and the operation of off-campus Residence Hall units to provide additional facilities for civilians.

The following military and civilian units were housed in the dormitories from August 1, 1942, to June 30, 1944: Parent Teachers Association Short Course; Future Farmers of America Short Courses; Civilian Protection School; Civil Aeronautics Administration; Engineering, Science, and Management War Training; Army Administration Officer Candidate School, No. 3; Army Air Forces, 62nd College Training Detachment; and the Army Specialized Training Program.

At the peak enrollment of military units, 1,717 Army trainees were housed in the Residence Halls. At the same time that the Halls were filled with military units, six fraternity houses were operated as Residence Halls to provide additional facilities for civilian students. These complex operations were carried on with no increase in personnel except maid service.

Improvements made during the period under review included: (1) installation of an inventory numbering system designed to identify each item of room equipment as to location and condition; (2) improved civilian room assignment methods designed to eliminate unnecessary correspondence and to speed up service; (3) installation of maintenance and repair reporting and recording systems to maintain accurate records of room conditions; and (4) purchase of many items of equipment, some under activation costs, which will increase the comfort and utility of the Halls. Every effort has been made, through repeated

inventories and constant room checking, to protect property and to keep repairs up-to-date.

Work which must be done as soon as materials are available includes re-roofing of Buckman and Thomas Halls; remodeling of Buckman B and C, and Thomas B; redecoration of rooms in both Sledd Hall and Thomas Hall; and repair of much equipment, particularly mattresses which were heavily worn by military usage.

A Student War Loan Program was set up to enable college and university students majoring in certain fields to accelerate their educational program. At the University of Florida students majoring in engineering, pharmacy, chemistry, and physics were eligible for these loans. The status of this program to date is as follows:

Total amount loaned to University of Florida Students	**$23,171.15**
Number of individual loans granted	131
Number of students participating in the program	83
Number of students who participated in the program now in military service	55
Number of students participating in the program now in defense work	18
Number of report forms submitted to the Washington Office as of June 30, 1944	385

In addition to the above statements with reference to activities during the war period, the Dean of Students and the Assistant Dean have both maintained membership not only on numerous committees concerned with the usual activities of the University, but on special committees working on postwar plans and programs.

III. **Recommendation:**

In view of the need for more intensive work with the fraternities when the student body returns to normal size, it is recommended that a half-time assistant be added to the staff of the Dean of Students, the duties of this assistant to consist of work with campus fraternity groups.

Respectfully submitted,

R. C. Beaty, *Dean*

REPORT OF THE BUSINESS MANAGER

To the President of the University:

Sir: I have the honor to submit herewith the report of the Business Office and its subsidiary units, including the maintenance departments, for the biennium ending June 30, 1944.

The report includes a complete financial statement and balance sheet for all colleges and departments of the University, the Agricultural Experiment Stations, and the Agricultural Extension Service, as well as the Cafeteria, Soda Fountain, Bookstore, Infirmary, Residence Halls and other auxiliary units. Detailed reports are printed as exchange publications and copies are available for distribution to those interested.

Budget recommendations for the Business Office and all departments under its administration for the biennium ending June 30, 1947, will be submitted to you under separate cover, with comment on any increases or changes.

BUSINESS OFFICE

With the outbreak of the war, the University made its plant and facilities available to the Government and was able to secure an Officer Candidate Training School and, later, detachments of AAF and ASTP trainees. The total number of these trainees, with our civilian students, did not equal our prewar enrollment. However, the duties and responsibilities of this office were just as complicated, and we had more moneys and details to handle. In fact, the checking of contracts and the preparation of invoices and numerous reports essential to the efficient handling of transactions with the Army taxed our staff to the limit. The funds dealt with during this period increased to nearly three million dollars, which reduced our percentage of operating cost to about 1 per cent.

We still face the necessity of more adequate office space and facilities, which we trust may be provided in the near future through a postwar building program.

MAINTENANCE DEPARTMENTS AND BUILDINGS

While the Army programs have entailed a greater use of our buildings, owing to the fact that classes for trainees have been held from early morning until late in the evening, our plant has not been allowed to deteriorate. We have been able not only to take care of the inevitable wear and tear, but to make improvements through the installation of tile-tex floors. As a result, our plant is in excellent condition.

In December, 1942, Mr. W. Leroy Schoch, Superintendent of Buildings and Construction, requested a leave of absence to enter the armed forces and Mr. E. N. Bell, Assistant Superintendent and former Shop Foreman, was appointed Acting Superintendent to carry on in his absence. We feel that he and his co-workers have done an excellent job.

The following buildings have been completed at an additional cost during this period:

Experiment Station (Newell Hall)		
From Building Appropriations and Station Incidental Funds		$ 70,000.00
Total Cost	$115,000.00	
Wood Products Laboratory (School of Forestry)		5,000.00
Total Cost	15,000.00	
Florida Union Annex (North Wing)		10,000.00
Total Cost	30,000.00	

Other outstanding improvements are as follows:

Instructional and Administrative Buildings—Painting, repairs, and reconstruction of classrooms, as well as installation of tile-tex floors, etc., in the Auditorium, Benton Hall, Engineering Building, Peabody Hall, Library, Law Building, Post Office, P. K. Yonge Laboratory School, Seagle Building, Museum, and Artillery Stables	34,481.00
Service Units—Cafeteria, Bookstore, Soda Fountain, Residence Halls, Duplicating Department	10,458.00
Athletic Department—Buildings and Stadium—Painting seats and construction of a driveway into Stadium field, a new roof, a wind break around the swimming pool, repairs to the diving tower and showers, and painting of the Gymnasium	3,274.18
Sidewalks and Sewage Improvements on the Main Campus	3,718.00
Total of All Improvements as Listed	$136,931.18

ELECTRICAL MAINTENANCE DEPARTMENT AND TELEPHONE EXCHANGE

This Department furnished supervision, labor, and materials for the installation and/or maintenance of:

Campus primary distribution system
Campus secondary distribution system
Inside wiring (lighting and power)
Campus telephone cables (underground)
Telephone lines to and inside buildings
Communication systems inside buildings
Refrigeration units and systems
Campus street lighting system
Campus class bell system
Meters for lighting and power
Direct current power systems
Stadium lighting and scoreboard
Broadcast and Western Union lines
Appliances and apparatus

To meet the requirements of the Army educational programs, it was necessary to install 87 special exit lighting units, 21 fire gongs, 92 suspended study table lighting units in the Residence Halls, and 12 gongs in classroom buildings. Moreover, additional lighting was necessary in various rooms used as offices, and special power outlets were required in various Army classrooms.

Trouble calls for elevator service were handled by this Department. Special emphasis has been placed on the prevention of accidental electrical shock by grounding of apparatus and equipment. We have had no serious interruption of electrical service due to failure of our distribution system, but owing to the shortage of skilled labor, we have been unable to make regular routine inspections of all equipment.

Cited below are a few of the larger construction jobs handled during this biennium:

Although work on Newell Hall was started early in 1942, the greater part of the electrical distribution power and lighting has been installed during this biennium. The overhead lighting has been completed with temporary lampholders, since we plan to install fluorescent lighting fixtures at a later date. About six or eight months will still be required to install the special electrical equipment as the various laboratory rooms are completed and occupied.

In the Cafeteria and Dairy Products Laboratory installation was made of automatic controls and connecting electric motors for the cooling system. In the Food Products Laboratory installation was made of electrical connections and automatic control on special food dehydration and concentration research equipment. This equipment is saving approximately 300,000 gallons of water per month. In the Wood Products Laboratory installation of an outside transformer vault, of lighting and power outlets, and of temporary lampholders was completed. In Benton Annex lighting and power outlets were installed and special research equipment was connected for the Office of Scientific Research and Development projects. In the Animal Nutrition Laboratory complete new wiring was installed in the remodeled north wing for lighting, power, and fixtures; and special controls on research and laboratory equipment were installed.

Through the inventive ability of Mr. E. N. Bell and Mr. E. D. Godwin, Superintendent of Electrical Maintenance, an automatically controlled glass beaded projection screen has been installed in the Florida Union Auditorium.

Electrical Consumption

The kilowatt hourly consumption of electrical power dropped slightly during the biennium under consideration, but we find that the total cost and rate per K.W.H. has increased, due to the higher cost of fuel oil.

	Fuel oil per bbl.	K.W.	Amount	Rate per K.W.H.
July - Dec. 1942	$1.908	821,100	$10,620.97	1.293¢
Jan. - June 1943	1.915	851,200	10,945.84	1.286¢
July - Dec. 1943	2.041	861,600	11,589.21	1.345¢
Jan. - June 1944	1.855	923,400	11,425.82	1.237¢

From the above, we find an average rate per K.W.H. of 1.29¢ for this biennium.

Telephone Exchange

When the Army programs were at their peak, our Telephone Exchange, which operates under the supervision of Mr. E. D. Godwin, was taxed beyond its capacity to handle the load placed upon it. There were times when the load was so heavy that the operators could not answer all calls for lack of line cords on the switchboard. The 171 lines then in use, together with their extensions, totaled 294 instruments connected. Though we increased our city trunk lines to 13, the operators were often compelled to report that all city lines were busy. However, during the past few months fewer calls have been made and service is improving. Due to necessary salary increases and the loss of NYA funds for student operators, the average monthly cost per phone has increased from $2.45 to $2.68 for this biennium. Some underground cables were installed during the biennium. However, due to lack of cable facilities, it was necessary to install three overhead lines to care for necessary phones in the dormitory area.

CENTRAL HEATING PLANT

The following information summarizes a few of the costs for the Central Heating Plant from July 1, 1942, to July 1, 1944:

	1942-43	1943-44
Cold Weather Intensity, Degree Days	935	1,067
Radiation Served, Square Feet	95,000	95,000
Fuel for Hot Water in Cafeteria, Infirmary, and Laboratories, Barrels	3,200	5,200
Fuel for Building Heating, Barrels	3,197	4,174
Total Fuel, Barrels	6,397.21	9,373.95
Average Fuel Cost per Barrel, Delivered	2.15	2.09
Total Fuel Cost	$13,623.81	$19,551.43

The average cold weather for Gainesville amounts to 980 degree days, so that the cold weather for the year 1942-43 was a little below average and the cold weather for 1943-44 was a little above average. The number of buildings and amount of radiation served remained the same during both years. The fuel used for heating hot water supplying steam to the Cafeteria, Infirmary, Chemical Engineering Laboratory, Mechanical Engineering Laboratory, Chemistry Department, Wood Products Laboratory, and the Agricultural Experiment Station was greatly increased during the year 1943-44, due to the large number of Army personnel served in the Cafeteria, housed in the Residence Halls, and instructed in the various laboratories.

The appended figures indicate the number of trainees who used the mess and lived in the dormitories:

1941-42	1942-43	1943-44
Civilian 3,239	Civilian 2,710	Civilian 691
	OCS 600	OCS 600
		ASTP and AAF 1,608

There is a noticeable increase in fuel used for heating buildings in 1943-44 over 1942-43, more than would be justified by the increase in cold weather intensity, which is partly due to operating through holiday periods because of Army personnel. Formerly, we had been able to effect a saving during such periods by shutting off the heat. The Army personnel stationed in the Residence Halls required more heat than had ever been furnished to civilian personnel housed therein. The fuel costs during this biennium increased from $1.54 (during the year 1941-42) to approximately $2.10 per barrel. In order to insure more economical operation, additional meters were installed to guide the firemen in securing the best combustion conditions.

GROUNDS

Due to labor shortage, which at times has been critical, many contemplated improvements had to be left until more help is available. Of the improvements noted below, the most important concern the Plaza of the Americas and areas north of the Plaza, where 4,400 square feet of cement walk were laid. Approximate cost	$ 750.00
The old cement walks from Fletcher Patio to the north entrance of Florida Union were widened and repaired; walks leading to the Cafeteria entrance were laid; and the ground in this area was graded and landscaped. Approximate cost	1,500.00
New cement seats were cast and placed on the campus grounds. Approximate cost	250.00
The ground was graded and landscaped around a new half-circle driveway to the west side of Murphree Hall. Approximate cost	1,000.00
The dirt roads around the Artillery Stables were repaired and resurfaced, and shrubs were planted around the Athletic fields. Approximate cost	250.00
Old walks were moved from the Newell Experiment Station grounds, tons of rubbish were removed, and new soil was hauled in to improve the ground for planting. Six large palms were moved and replanted on the north side and many new palms planted on the south side of the building. The ground was graded and shrubs and grass planted. Approximate cost	1,500.00
The lime rock driveway to the south entrance of P. K. Yonge Laboratory School was resurfaced, and cinders were placed on the running track. Approximate cost	200.00
The driveway to the Horticultural Garden, the roads to the Poultry Laboratory, Duplicating Department, and Hydraulic Laboratory were improved. Approximate cost	700.00

MILITARY PROPERTY

Attributed directly to the War Department requirements for prosecuting World War II, many changes and reductions were made in our ROTC. Advanced ROTC Military Training was discontinued for the duration. Owing to the small civilian enrollment, the number of basic military students was decreased. This automatically caused a great deal of the military training equipment, including all 75 mm guns and equipment, all machine guns and equipment, all Army horses, saddles, and harness equipment to be shipped away by order of the War Department.

CAFETERIA

In September, 1942, we began our military program with Officer Candidate School, No. 3, which had a total candidate enrollment of 600. We were paid on a per diem basis, and in this way could accommodate Army and civilian students by rearranging the meal schedule. It was, of course, necessary to increase the overhead very materially by an increased staff of dietitians and other employees. Beginning in February, 1943, we closed a contract with the 62nd College Training Detachment of the Air Forces to mess a maximum of 750 pre-pre-flight trainees. It was then necessary to eliminate all civilian students and feed only Army trainees: first, because of lack of space; and, second, because we fed them on a cost basis. The Florida Union Banquet Hall was used for an additional dining room by installing steam tables and other equipment. Also, the small wing dining room was utilized to capacity.

Our contract with the Officer Candidate School terminated in June, 1943, but at the same time we initiated a contract with the War Deparment for a unit of the Army Specialized Training Program with a maximum enrollment of 850 trainees. Due to the organization of these Army units we were able to feed approximately 1,600 trainees three times a day with a total seating capacity of 515.

New equipment and improvements purchased and installed included two gas ranges, one deep-fat frier, a slicing machine, one small dishwashing machine as a standby and 200 chairs and tables for the banquet hall. All dining room tables were covered with white inlaid linoleum. One range, the fat frier, and the slicing machine were replacements.

SODA FOUNTAIN

The Cafeteria and the Soda Fountain have been operated as a joint activity in charge of the Dietitian, with the Cafeteria furnishing all prepared food. When we converted the Cafeteria into an Army mess, it was necessary to eliminate our service to the Soda Fountain. Since that time, the Soda Fountain has been serving sandwiches, ice cream, cakes, etc., instead of providing the restaurant meal service previously offered. Very little equipment has been purchased for the Soda Fountain, but many repairs and improvements were made to meet Army standards.

BOOKSTORE

The University Bookstore, located in the Florida Union Annex, was used by the Army programs to handle all textbooks and training supplies. During this period the Bookstore handled approximately $75,000 worth of military textbooks, for which the Army paid a 5 per cent handling charge. It also continued to serve the few civilian students and to provide correspondence students with necessary equipment. However, the bulk of the business of the Bookstore was carried on with Army trainees.

DUPLICATING DEPARTMENT

The Duplicating Department, operating with Mr. G. T. Bond as Acting Manager, continues to serve the University and its auxiliary units at a considerable saving over what would be expended on printing bills. We have satisfactory equipment to do mimeographing, multigraphing, multilithing and ditto work for all departments of the University. The ASTP and AAF units on the campus

have had the benefit of this University facility, as well as instruction, housing, messing, etc., for the past several years. The bookkeeping system is adequate to take care of all records necessary for safeguarding the operations involved. This Department is entirely self-supporting and receives its income in the form of compensation for supplies, services as noted above, and photographic and bindery work, provided at a saving of more than 10 per cent to the various University departments. This work is carried on by eight full-time employees duly appointed and budgeted.

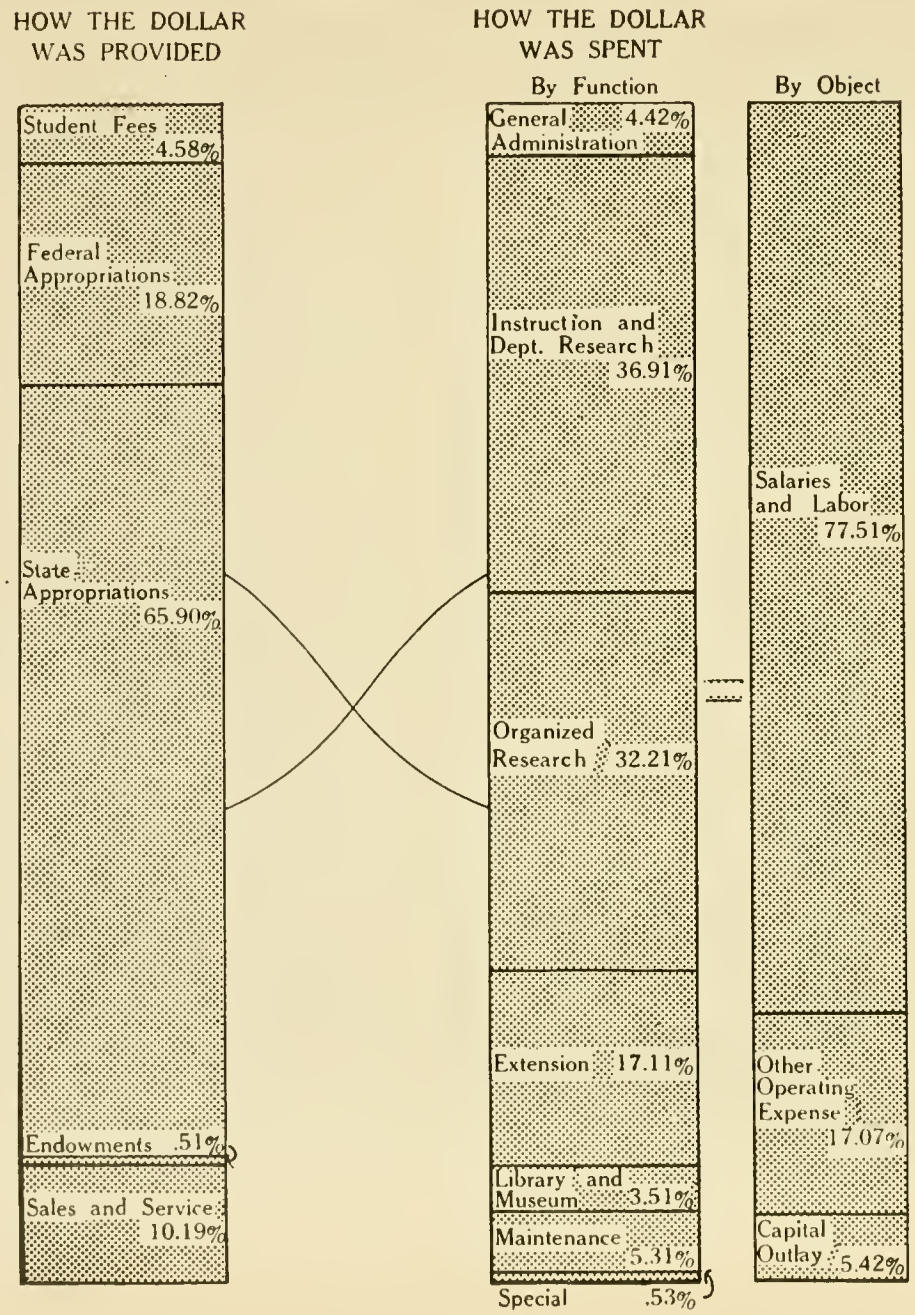
REPORT OF NON-EDUCATIONAL FUNDS
JULY 1, 1942 THROUGH JUNE 30, 1944

	Balances July 1, 1942	Debits	Credits	Balances June 30, 1944
AUXILIARY FUNDS				
Cafeteria and Soda Fountain	$ 16,065.81	$ 853,843.93	$ 852,205.81	$ 17,703.93
Dormitories—				
Thomas, Buckman and Sledd	9,317.76*	120,201.23	93,354.20	17,529.27
Fletcher		40,421.52	40,421.52	
Murphree		62,949.42	62,949.42	
Bonds	13,100.00			13,100.00
Room Reservations	11,750.50	12,155.00	19,785.00	4,120.50
Infirmary	10,212.12	60,966.18	65,115.13	6,063.17
Radio Station	2,070.83	105,673.68	76,784.92	30,959.59
Bookstore	1,852.33	161,100.74	159,459.00	3,494.07
P. K. Yonge Cafeteria	45.46*	35,131.13	32,375.55	2,710.12
TOTALS	$ 45,688.37	$1,452,442.83	$1,402,450.55	$ 95,680.65
AGENCY FUNDS				
Student Activity Funds	$ 9,427.92	$ 68,676.28	$ 75,512.11	$ 2,592.09
University Incidentals		926,021.81	926,021.81	
Station Incidentals		285,910.44	285,910.44	
ROTC Student Clothing Funds	886.45	1,644.56	2,001.44	529.57
Louis D. Beaumont	1,885.00		766.25	1,118.75
Laboratory Breakage	2,887.09	6,501.50	7,443.26	1,945.33
Pharmacy Professional Relations	55.48	7,184.05	6,168.76	1,070.77
Cash Deposit—Student Bank	26,872.87	435,486.48	450,376.65	11,982.70
Scholarships and Loans	10,558.23	88,235.02	81,004.30	17,788.95
Day Lily Research	311.00			311.00
Drug Research	117.56		1.08	116.48
ESMDTC—Federal Funds	12,185.48	51,786.97	63,972.45	
ESMWT—Federal Funds		227,837.51	190,891.82	36,945.69
ESMWT—Regional Advisor		4,704.35	3,177.61	1,526.74
Florida Agricultural Experiment Station Federal Funds	9,881.74	249,786.83	254,486.10	5,182.47
Swimming Pool and Locker	33.00	18,726.24	18,748.63	10.61
Sloan Project and Applied Economics	6,561.45	32,166.14	34,532.17	4,195.42
Civil Aeronautics Authority	1,388.20	49,211.05	40,454.54	10,144.71
Wood Products Laboratory	162.75		52.64	110.11
Florida Union Annex—Special Building Fund	13,999.15	17,140.00	29,788.91	1,350.24
Engineering Experiment Station	2,658.35	15,043.20	7,389.25	10,312.30
General Education Board—Library Fund		40,146.15	38,632.43	1,513.72
General Education Board—Work Simplification Project		5,000.00	2,692.96	2,307.04
General Education Board—Nutrition Project		25,000.00	18,683.90	6,316.10
Accounts Payable	30,559.00		30,559.00	
Murphree Memorial Fund	2,981.52	1,772.98		4,754.50
YMCA Furniture Fund	382.87		382.87	
OSRD Research Project 2453		57,096.22	84,914.93	27,818.71*
OPRD Project 7001			1,010.93	1,010.93*
U. S. Signal Corp Project 2509		5,000.00	5,830.39	830.39*
Victory Tax Account		2,987.82	2,987.82	
Withholding Tax Account		2,195.30	2,195.30	
Western Union Sub-Station Account		555.98	407.87	148.11
Florida Crippled Children Society		425.00		425.00
Inter-American Work Shop		650.00	650.00	
Florida Medical Association Post Graduate Course		38.00	38.00	
TOTALS	$ 133,795.11	$2,626,929.88	$2,667,686.62	$ 93,038.37
SPECIAL TRUST FUNDS				
Parsons Museum Fund	$ 623.18		$ 230.94	$ 392.24
TOTAL ALL FUNDS	$ 180,106.66	$4,079,372.71	$4,070,368.11	$ 189,111.26

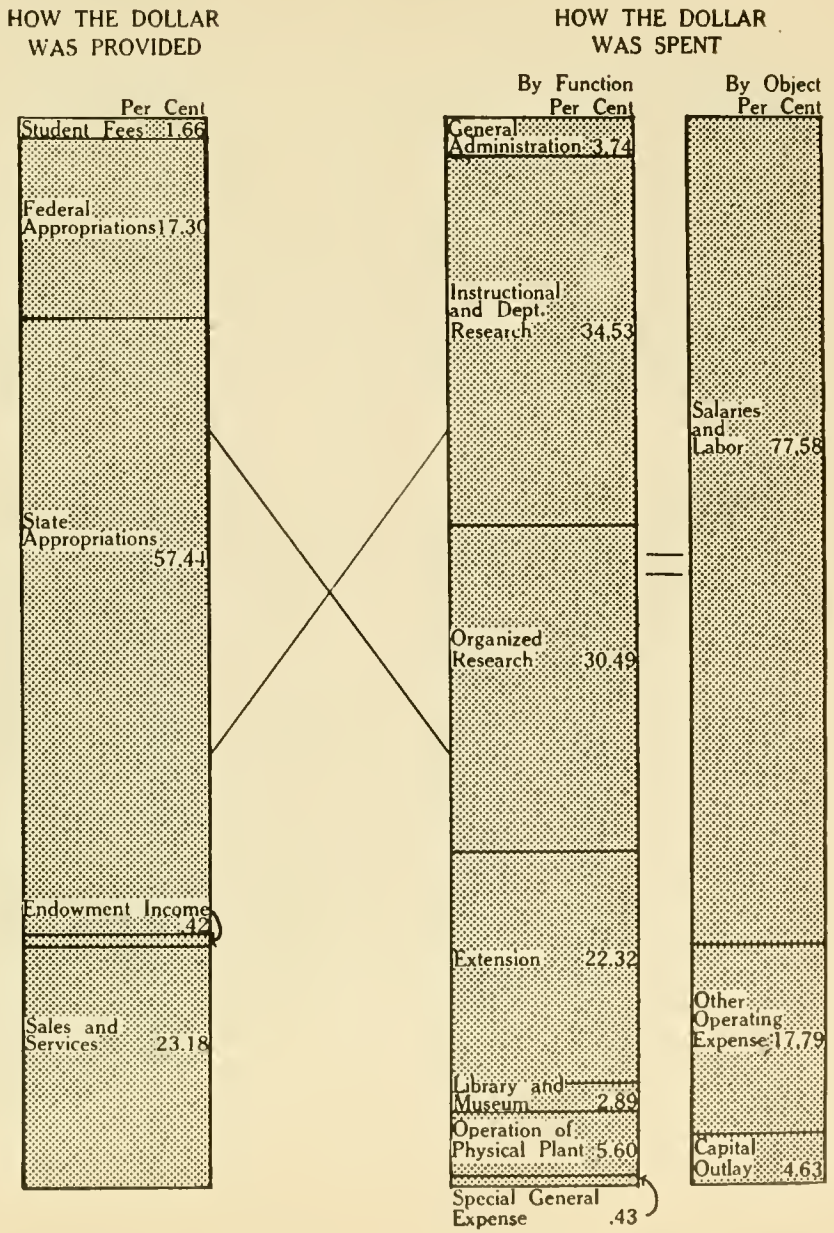
* Debit.

Respectfully submitted,

K. H. GRAHAM, *Business Manager*



The Operating Dollar 1943 - 44



UNIVERSITY OF FLORIDA
REPORT OF INCOME AND DISBURSEMENTS
1942-1944

	Balance 7-1-42	1942-43 Income	1942-43 Disbursements	Reverted 6-30-43	1943-44 Income	1943-44 Disbursements	Balance 6-30-44
STATE APPROPRIATIONS							
University of Florida:							
Salaries	$ 33.967.34	$ 783,090.00	$ 734,212.78	$ 82,844.56	$ 707,790.00	$ 702,924.38	$ 4,865.62
Necessary and Regular Expense	978.01	209,160.00	161,464.00	48,674.01	161,660.00	161,660.00	.....
Special Emergency Appropriation for Leaves of Absence	.....	.....	.....	.....	100,975.00	2,888.85	98,086.15*
Chair of Americanism	.....	2,500.00	2,498.41	1.59	2,500.00	2,495.01	4.99*
Department of Forestry—Chapter 17028	1,142.10	7,500.00	3,917.42	4,724.68	.....	.....	.....
School of Forestry—Chapter 18403	Dr. 245.64	25,000.00	23,416.09	1,338.27	.....	.....	.....
School of Forestry—Section 241.09	.....	.....	.....	.....	32,500.00	32,499.92	.08*
Agricultural College Fund—Chapters 5384 and 19137	.....	7,750.00	7,750.00	.....	7,750.00	7,750.00	.....
Radio Station WRUF							
Salaries	4,200.00	5,000.00	720.00	8,480.00	5,000.00	1,245.00	3,755.00
Necessary and Regular Expense	4,444.57	5,000.00	3,436.16	6,008.41	5,000.00	3,395.44	1,604.56
Special: Equipment for the Biennium	29,462.18	.....	10,695.55	18,766.63	.....	.....	.....
Florida Industrial and Engineering Experiment Station	.....	.....	.....	.....	20,000.00	4,013.69	15,986.31*
Total State Appropriations	$ 73,948.56	$1,045,000.00	$ 948,110.41	$170,838.15	$1,043,175.00	$ 918,872.29	$124,302.71
Less Balances Reverting 6-30-44	.....	.....	.....	.....	.....	.....	$114,077.53
Available Balance Carried Forward	.....	.....	.....	.....	.....	.....	$ 10,225.18
FEDERAL FUNDS							
Morrill-Nelson Fund	$	$ 25,000.00	$ 25,000.00	$	$ 25,000.00	$ 25,000.00	$ .....
Bankhead-Jones Fund	.....	20,827.55	20,827.55	.....	20,827.55	20,827.55	.....
Total Federal Funds	$	$ 45,827.55	$ 45,827.55	$	$ 45,827.55	$ 45,827.55	$ .....
ENDOWMENT FUNDS							
American Legion Interest Fund	$	$ 2,200.00	$ 2,200.00	$	$ 2,200.00	$ 2,200.00	$ .....
Seminary Interest Fund	.....	4,241.99	2,803.08	.....	3,098.05	2,839.30	1,697.66
Total Endowment Funds	$	$ 6,441.99	$ 5,003.08	$	$ 5,298.05	$ 5,039.30	$ 1,697.66
INCIDENTAL FUNDS							
University	$ 61,808.20	$ 263,993.70	$ 265,289.18	$	$ 588,104.51	$ 406,551.12	$242,066.11
General Extension Division	11,401.63	32,034.58	26,954.18	.....	40,460.76	30,625.44	26,317.35
Total Incidental Funds	$ 73,209.83	$ 296,028.28	$ 292,243.36	$	$ 628,565.27	$ 437,176.56	$268,383.46
OTHER FUNDS							
Alachua County Appropriation for P. K. Yonge School	$	$ 10,700.00	$ 10,700.00	$	$ 10,700.00	$ 10,700.00	$ .....

* Balance reverting 6-30-44.

UNIVERSITY OF FLORIDA
REPORT OF INCOME AND DISBURSEMENTS
1942-1944

	Balance 7-1-42	1942-43 Income	1942-43 Disbursements	Reverted 6-30-43	1943-44 Income	1943-44 Disbursements	Balance 6-30-44
BUILDING FUNDS							
Permanent Building Fund—Chapter 14573	$ 3,158.05	$ 1,566.80	$ 4,617.89	$	$	$	$ 106.96
Jno. F. Seagle Building Fund, Section 2, Chapter 18404	13,202.70	.....	1,544.50	.....	.....	862.92	10,795.28
Rehabilitation Agricultural Experiment Station Building—Chapter 20980	35,118.94	.....	35,113.41	5.53	.....	.....	.....
Total Building Funds	$ 51,479.69	$ 1,566.80	$ 41,275.80	$ 5.53	$	$ 862.92	$ 10,902.24
Total University Funds	$198,638.08	$1,405,564.62	$1,343,160.20	$170,843.68	$1,733,565.87	$1,418,478.62	$405,286.07
Less State Appropriations Reverting	.....	.....	.....	.....	.....	.....	$114,077.53
Net Balance	.....	.....	.....	.....	.....	.....	$291,208.54

FLORIDA AGRICULTURAL EXPERIMENT STATIONS
REPORT OF INCOME AND DISBURSEMENTS
1942-1944

STATE APPROPRIATIONS							
Main Experiment Station							
Salaries	$ 7,563.82	$ 126,803.00	$ 134,665.29	$ 301.53	$ 171,030.37	$ 171,030.37	$ .....
Necessary and Regular Expense	4,856.51	120,996.00	115,940.51	9,912.00	73,365.00	73,365.00	.....
Vegetable Crops Laboratory							
Salaries	3,475.60	11,860.00	9,379.31	5,956.29	19,412.00	18,385.39	1,026.61
Necessary and Regular Expense	578.04	13,140.00	12,654.18	1,063.86	14,255.55	14,001.59	253.96
Gladioli Investigations							
Salaries	2,600.00	3,600.00	6,111.65	88.35	3,600.00	3,105.62	494.38
Necessary and Regular Expense	81.65	1,400.00	1,085.32	396.33	1,400.00	1,115.39	284.61
Strawberry Investigations							
Salaries	1,415.00	4,800.00	4,800.00	1,415.00	4,800.00	3,800.00	1,000.00
Necessary and Regular Expense	94.05	1,500.00	394.56	1,199.49	1,500.00	683.48	816.52
Potato Investigations Laboratory							
Salaries	42.63	7,800.00	7,842.63	.....	9,208.00	9,208.00	.....
Necessary and Regular Expense	2.52	4,200.00	3,722.52	480.00	2,792.00	2,792.00	.....
Celery Investigations							
Salaries	492.87	10,200.00	8,141.05	2,551.82	11,004.00	7,422.04	3,581.96
Necessary and Regular Expense	.....	4,800.00	4,200.00	600.00	3,996.00	3,996.00	.....
Citrus Experiment Station							
Salaries	4,568.57	43,048.00	40,154.48	7,462.09	39,268.00	37,523.72	1,744.28
Necessary and Regular Expense	3,571.72	28,402.00	22,958.21	9,015.51	27,562.00	26,494.13	1,067.87
Everglades Experiment Station							
Salaries	57.48	33,928.00	33,985.48	.....	35,026.00	35,026.00	.....
Necessary and Regular Expense	2.00	20,072.00	17,914.00	2,160.00	13,646.00	13,646.00	.....
Continuing Fund—Chapter 8442	.....	5,000.00	5,000.00	.....	5,000.00	5,000.00	.....
Building and Laboratory	25,000.00	25,000.00	.....	50,000.00	.....	.....	.....

UNIVERSITY OF FLORIDA
REPORT OF INCOME AND DISBURSEMENTS
1942-1944

	Balance 7-1-42	1942-43 Income	1942-43 Dis-bursements	Reverted 6-30-43	1943-44 Income	1943-44 Dis-bursements	Balance 6-30-44
North Florida Experiment Station							
Salaries	42.23	17,868.00	17,910.23	.....	13,348.00	13,348.00	.....
Necessary and Regular Expense	.....	15,232.00	13,908.00	1,324.00	13,548.00	13,548.00	.....
Sub-Tropical Experiment Station							
Salaries	68.18	18,132.00	18,103.23	96.95	14,676.00	13,727.22	948.78
Necessary and Regular Expense	.....	2,868.00	2,028.00	840.00	8,524.00	8,524.00	.....
Watermelon and Grape Investigations							
Salaries	2.08	9,240.00	4,206.30	5,035.78	9,956.00	5,340.51	4,615.49
Necessary and Regular Expense	.....	4,260.00	3,720.00	540.00	6,344.00	6,344.00	.....
Weather Forecasting Service							
Salaries	.....	1,200.00	1,016.13	183.87	2,400.00	1,714.80	685.20
Necessary and Regular Expense	5,932.05	18,800.00	12,647.10	12,084.95	17,600.00	13,807.15	3,792.85
Ornamental Horticulture							
Salaries	6,000.00	6,000.00	.....	12,000.00	.....	.....	.....
Necessary and Regular Expense	4,000.00	4,000.00	.....	8,000.00	.....	.....	.....
Range Cattle Station							
Salaries	709.46	5,400.00	6,109.46	.....	5,400.00	5,400.00	.....
Necessary and Regular Expense	2.64	7,100.00	6,612.64	490.00	7,100.00	7,100.00	.....
State Soil Conservation	3,765.11	10,000.00	8,633.72	5,131.39	.....	.....	.....
Emergency Appropriation	2,610.85	10,000.00	.....	12,610.85	10,000.00	.....	10,000.00*
Special Vegetable Crops Laboratory Greenhouse (Biennium)	3,544.96	.....	.....	3,544.96	.....	.....	.....
Special Vegetable Crops Laboratory—Plant Pathology and Entomology	3,661.56	10,000.00	11,661.56	2,000.00	.....	.....	.....
North Florida Mobile Units—Chapter 20983	3,097.63	50,000.00	14,471.09	38,626.54	.....	.....	.....
North Florida Mobile Units							
Salaries	.....	.....	.....	.....	15,000.00	6,915.77	8,084.23*
Necessary and Regular Expense	.....	.....	.....	.....	15,000.00	12,940.65	2,059.35*
Soil Survey							
Salaries	.....	3,000.00	.....	3,000.00	3,000.00	3,000.00	.....
Necessary and Regular Expense	.....	2,000.00	.....	2,000.00	2,000.00	2,000.00	.....
Total State Appropriations	$ 87,839.21	$ 661,649.00	$ 549,376.65	$200,111.56	$ 580,760.92	$ 540,304.83	$ 40,456.09
Less Balances Reverting 6-30-44	.....	.....	.....	.....	.....	.....	$ 20,143.58
Net Balance	.....	.....	.....	.....	.....	.....	$ 20,312.51
FEDERAL FUNDS							
Hatch Fund	.....	15,000.00	15,000.00	.....	15,000.00	15,000.00	.....
Adams Fund	.....	15,000.00	15,000.00	.....	15,000.00	15,000.00	.....
Purnell Fund	.....	60,000.00	60,000.00	.....	60,000.00	60,000.00	.....
Bankhead-Jones Fund	.....	34,782.16	34,782.16	.....	34,782.16	34,782.16	.....
Total Federal Funds	.....	$ 124,782.16	$ 124,782.16	.....	$ 124,782.16	$ 124,782.16	.....

* Balance reverting 6-30-44.

UNIVERSITY OF FLORIDA
REPORT OF INCOME AND DISBURSEMENTS
1942-1944

	Balance 7-1-42	1942-43 Income	1942-43 Dis-bursements	Reverted 6-30-43	1943-44 Income	1943-44 Dis-bursements	Balance 6-30-44
INCIDENTAL FUNDS							
Station Incidental Fund (All Stations)	$ 94,711.03	$ 133,001.38	$ 63,061.91	.....	$ 148,410.53	$ 150,167.99	$162,893.04
Everglades Station Incidental Fund	8,852.60	.....	.....	.....	.....	.....	8,852.60
Total Incidental Funds	$103,563.63	$ 133,001.38	$ 63,061.91	.....	$ 148,410.53	$ 150,167.99	$171,745.64
Total Experiment Station Funds	$191,402.84	$ 919,432.54	$ 737,220.72	$200,111.56	$ 853,953.61	$ 815,254.98	$212,201.73
Less State Appropriations Reverting	.....	.....	.....	.....	.....	.....	$ 20,143.58
Net Balance	.....	.....	.....	.....	.....	.....	$192,058.15
AGRICULTURAL EXTENSION SERVICE REPORT OF INCOME AND DISBURSEMENTS 1942-1944							
STATE APPROPRIATIONS							
Offset for Federal Funds							
Salaries	$ 989.20	$ 60,980.00	$ 51,375.90	$ 10,593.30	$ 67,980.00	$ 67,980.00	$ .....
Necessary and Regular Expense	10,925.88	47,820.00	36,751.01	21,994.87	40,820.00	35,233.58	5,586.42
Continuing Appropriation—Chapter 19216	.....	.....	.....	.....	25,000.00	12,834.85	12,165.15*
Total State Appropriations	$ 11,915.08	$ 108,800.00	$ 88,126.91	$ 32,588.17	$ 133,800.00	$ 116,048.43	$ 17,751.57
Less Funds Reverting 6-30-44	.....	.....	.....	.....	.....	.....	$ 12,165.15
Net Balance	.....	.....	.....	.....	.....	.....	$ 5,586.42
FEDERAL FUNDS							
Capper-Ketcham Fund	$ 545.62	$ 26,872.10	$ 27,417.72	$	$ 27,417.72	$ 27,417.72	$ .....
Smith-Lever-Bankhead-Jones Fund	2,807.27	197,982.40	200,789.67	.....	200,653.07	200,653.07	.....
Emergency Farm Labor Program	.....	115,000.00	2,677.43	.....	100,000.00	178,702.41	33,620.16
Emergency War Food and Conservation	.....	.....	.....	.....	25,000.00	20,039.66	4,960.34
Total Federal Funds	$ 3,352.89	$ 339,854.50	$ 230,884.82	$	$ 353,070.79	$ 426,812.86	$ 38,580.50
Total Agricultural Extension Service Funds	$ 15,267.97	$ 448,654.50	$ 319,011.73	$ 32,588.17	$ 486,870.79	$ 542,861.29	$ 56,332.07
Less State Appropriations Reverting	.....	.....	.....	.....	.....	.....	$ 12,165.15
Net Balance	.....	.....	.....	.....	.....	.....	$ 44,166.92

* Balance reverting 6-30-44.

REPORT OF THE REGISTRAR

To the President of the University:

SIR: As Registrar of the University of Florida, I have the honor to submit the following report for the regular sessions, 1942-43, 1943-44 and the Summer Sessions, 1943 and 1944. During the period, the University carried on the College Training Program of the Army Air Forces, maintained a unit of the Army Specialized Training Program and conducted a short program for former ROTC students of the University, who were attached to the ASTP unit for a short period during the academic year, 1943-44. Because none of these programs coincided as to instructional periods with each other or with the regular civilian program, it is necessary to report enrollments for each of the programs separately.

Table I. CIVILIAN ENROLLMENTS

A. Enrollment by Colleges and Schools for the Regular Sessions, 1942-43 and 1943-44.

	1942-43	1943-44
College of Agriculture	112	16
School of Architecture and Allied Arts	27	6
College of Arts and Sciences	194	42
College of Business Administration	166	17
College of Education	44	6
College of Engineering	151	58
School of Forestry	20	....
General College	1,884	464
Graduate School	72	60
College of Law	57	26
School of Pharmacy	26	13
	2,753	708
Less Duplicates	43	17
NET TOTAL ENROLLMENT	2,710	691

B. Enrollment by Schools and Colleges for the Summer Sessions, 1943 and 1944.

1. SUMMER SESSIONS AT GAINESVILLE

	1943			1944		
	1st Term	2nd Term	Total	1st Term	2nd Term	Total
College of Agriculture	15	11	26	4	0	4
School of Architecture and Allied Arts	3	0	3	4	0	4
College of Arts and Sciences	38	31	69	25	22	47
College of Business Administration	13	15	28	10	8	18
College of Education	140	107	247	141	88	230
College of Engineering	56	50	106	21	19	40
School of Forestry	1	1	2	1	0	1
General College	289	272	561	260	245	505
Graduate School	80	70	150	97	70	168
College of Law	13	14	27	22	18	40
School of Pharmacy	6	1	7	0	1	1
Unclassified	82	60	142	122	64	187
	736	632	1,368	707	535	1,245
Less Duplicates			492			405
Number of Individuals Enrolled at Gainesville			876			840

2. TRADE AND INDUSTRIAL SCHOOL AT DAYTONA BEACH

	1943 1st Term	1943 2nd Term	1943 Total	1944 1st Term	1944 2nd Term	1944 Total
Undergraduates	68	88	156	87	94	181
Graduates	10	10	20	12	9	21
	78	98	176	99	103	202
Less Duplicates			19			45
Number of Individuals Enrolled at Daytona Beach			157			157

3. RECAPITULATION OF SUMMER SESSION ENROLLMENTS

	1943	1944
Individuals Registered at Gainesville	876	840
Individuals Registered at Daytona Beach	157	202
	1,033	1,042
Less Duplicates	1	....
NET TOTAL INDIVIDUALS REGISTERED	1,032	1,042

Table II. ENROLLMENT IN ARMY AIR FORCES COLLEGE TRAINING DETACHMENT

February 26, 1943 - June 30, 1944

Date	Admitted	Withdrawals
February, 1943	743	0
March, 1943	9	5
April, 1943	0	4
May, 1943	153	152
June, 1943	0	154
July, 1943	153	306
August, 1943	302	152
September, 1943	326	155
October, 1943	150	150
November, 1943	151	153
December, 1943	150	151
January, 1944	86	153
February, 1944	150	150
March, 1944	300	150
April, 1944	149	408
May, 1944	139	194
June, 1944	0	524
TOTAL	2,961	2,961

Table III. ENROLLMENT IN THE ARMY SPECIALIZED TRAINING PROGRAM

June 13, 1943 - June 30, 1944

Curriculum	Term 1	2	3	4A	4	5	6	7	Total for Curriculum
Introductory Curriculum (N 20)	27								27
Introductory Curriculum (N 30)		24							24
Basic Curriculum (B 60)	60	34							94
Basic Engineering 1	903	289	136						1,328
Basic Engineering 4	60	32							92
Pre-Professional			44		43	27			114
Chemical Engineering					19	13	12		44
Civil Engineering				66	86	62	52	20	286
Electrical Engineering				84	103	59	19		265
Mechanical Engineering				61	81	79	57	25	303
Total for Term or Cycle	1,050	379	180	211	332	240	140	45	
GRAND TOTAL									2,577
Less Duplicates									1,082
Total Number of Individuals Enrolled Throughout ASTP									1,495

Table IV. ENROLLMENT IN ROTC - ASTP

October, 1943 - April, 1944

College of Agriculture	22
School of Architecture and Allied Arts	2
College of Arts and Sciences	25
College of Business Administration	24
College of Education	5
College of Engineering	12
School of Forestry	1
General College	13
School of Pharmacy	1
TOTAL ENROLLMENT	105

Table V. ENROLLMENT IN THE UNIVERSITY OF FLORIDA FROM 1905 TO 1944

Regular Session	Number Enrolled	Summer Term	Number* Enrolled	Total
1905-06	135	.....	.....	135
1906-07	102	.....	.....	102
1907-08	103	.....	.....	103
1908-09	103	.....	.....	103
1909-10	186	.....	.....	186
1910-11	241	.....	.....	241
1911-12	302	.....	.....	302
1912-13	321	1913	140	461
1913-14	361	1914	269	630
1914-15	395	1915	402	797
1915-16	447	1916	539	986
1916-17	460	1917	434	894
1917-18	421	1918	434	855
1918-19	554	1919	612	1,166
1919-20	664	1920	743	1,407
1920-21	823	1921	783	1,606
1921-22	1,002	1922	895	1,897
1922-23	1,183	1923	1,028	2,211
1923-24	1,347	1924	944	2,291
1924-25	1,488	1925	987	2,475
1925-26	1,860	1926	908	2,768
1926-27	1,968	1927	1,269	3,237
1927-28	2,073	1928	1,686	3,759
1928-29	2,270	1929	1,613	3,883
1929-30	2,257	1930	1,480	3,737
1930-31	2,388	1931	1,530	3,918
1931-32	2,558	1932	1,746	4,304
1932-33	2,628	1933	1,086	3,714
1933-34	2,371	1934	1,310	3,681
1934-35	2,848	1935	1,602	4,450
1935-36	2,983	1936	1,706	4,689
1936-37	3,069	1937	2,136	5,205
1937-38	3,278	1938	2,631	5,909
1938-39	3,438	1939	2,591	6,029
1939-40	3,456	1940	2,805	6,261
1940-41	3,438	1941	2,622	6,060
1941-42	3,239	1942	2,625†	5,864
1942-43**	2,710	1943	1,032	3,742
1943-44**	691	1944	1,042	1,733

* These figures include the enrollment in the demonstration school, except for the Summer Sessions of 1933 and after.

** The figures given are for civilian enrollment only. In addition to enrollments shown in the table during the period from March, 1943, to December, 1944, 2,961 trainees were given from 3 to 5 months' instruction for the Army Air Forces and 1,495 trainees were given from 3 to 15 months' instruction under the Army Specialized Training Program.

† Includes 379 students registered in the September, 1942, inter-session.

Table VI. DIPLOMAS, CERTIFICATES AND DEGREES CONFERRED SINCE 1905

	No. Diplomas and Certificates	Bacca-laureate	Profes-sional	Masters'	Doctors'	Honorary Degrees
*1905-1938	1,730	5,054	53	467	23	21
1938-39	446	408	....	22	2	2
SS 1939	122	166	....	47	....	....
1939-40	457	437	....	22	1	....
SS 1940	83	170	....	41	3	....
1940-41	452	488	2	33	4	2
SS 1941	71	187	....	41	1	....
1941-42	381	386	1	22	4	2
SS 1942	116	140	....	17	2	....
1942-43	170	337	....	15	4	....
SS 1943	33	110	....	27	1	....
1943-44	39	102	....	11	....	3
SS 1944	16	69	....	24	....	....

* For distribution by years see the Biennial Report for the biennium ending June 30, 1938.

** In the column headed "Diplomas and Certificates" is grouped the number of all awards made upon the completion of curricula of less than four years duration.

During the biennium there has been considerable turnover in the personnel of the staff of the Registrar's Office, which has made quite difficult the work of scheduling sometimes as many as four separate programs, none of which coincided as to beginning and ending dates; conducting registrations for these programs, often as frequently as every three weeks; preparing the numerous reports required by the War Department and maintaining records of the trainees in accordance with War Department regulations. Mr. Stanley E. Wimberly, Assistant Professor of Psychology, was assigned half time to the Registrar's Office at the beginning of the participation in the war training programs. His services as Acting Assistant Registrar were of great value. He is at present on leave, completing the work for his doctorate at the University of Michigan.

The most pressing need of the Registrar's Office is additional space to provide for adequate filing of student records. If possible, space should be assigned which would afford some measure of fire protection, inasmuch as more than two-thirds of the records are now filed in a manner that offers no protection against fire.

Respectfully submitted,

R. S. Johnson, *Registrar*

REPORT OF THE ACTING UNIVERSITY EXAMINER

To the President of the University:

Sir: During the biennium ending June 30, 1944, the Board of University Examiners has maintained all of its essential peacetime activities, which are described in the biennial report for June 30, 1942, and which, therefore, need not be repeated here.

In addition, the Board rendered extensive testing service to the several mili-

tary units on the campus. The Board performed much the same function for the Army Specialized Training Program and the Army Air Forces College Training Detachment as it does for the General College, thus providing a more accurate system of evaluation of students' work and saving a hard-pressed instructional staff valuable time. This service included the preparation of some 250 tests, the mimeographing of approximately 50,000 test booklets, and the scoring of approximately 107,000 answer sheets. The Board also scored and analyzed about 18,000 answer sheets for the Officer Candidate School.

The work of the Board during the past biennium has probably been the heaviest in its history, the reduction in volume brought about by the decrease in civilian enrollment having been more than offset by the work for the military units. Altogether, during the biennium the Board prepared 521 tests and examinations, produced 97,838 test booklets, assigned 48,936 final grades, and scored 251,090 answer sheets.

Returning veterans will present a difficult problem, both in guidance and in evaluation of credits, because of the varied training they received while in the armed forces. The Board expects to render a special service in this respect by undertaking an extensive program of placement and diagnostic examinations for these men.

Respectfully submitted,

W. E. Moore, *Acting University Examiner*

REPORT OF THE DEAN OF THE GRADUATE SCHOOL

To the President of the University:

Sir: I beg to submit the following report of the activities of the Graduate School for the biennium ending June 30, 1944.

During the war, the enrollment in the Graduate School has held up better than might have been expected. The lowest registration was reached in 1942, when 40 graduate students enrolled each semester of the regular year. The first term of the 1944 Summer School showed a registration of 97 students, an increase of about 28 per cent over the previous summer. A total of 70 master's and 7 doctor's degrees was conferred during the period. Throughout the biennium, we operated on a diminished budget with a reduction in the amount spent for research and for graduate council assistantships.

In the spring of 1944, the Graduate Council made a study of the problem of the master's degree. As a result of this study, we inaugurated a new degree, Master of Education, designed to meet the needs of in-service teachers.

The School of Trade and Industrial Education at Daytona Beach offered only two three-week terms in each of the summers of 1943 and 1944. Previously, it had offered three terms each summer. Ten to twelve graduate students were registered. A Short Course for Doctors of Medicine has been given in Jacksonville each year in June under the auspices of the Florida Medical Association, the State Board of Health, and the Graduate School of the University of Florida. These courses have been very successful, attracting from 150 to 200 physicians through a carefully worked out program of lectures by eminent specialists. In cooperation with the General Extension Division, the Graduate School has provided a special service to teachers in Jacksonville during the emergency. A

graduate course in Education was offered in the spring of 1943, the fall of 1943, and the spring of 1944.

Graduate research funds provided necessary X-ray equipment for biology, motion picture films for psychology, library material, and books and periodicals, for all departments offering graduate work.

There is a close integration of the Graduate Council with the Research Council. Promotion of research by encouragement and aid to exceptional graduate students should continue to be an important part of our program. It is highly important to offer to such students inducements in the form of graduate assistantships and research fellowships, which will encourage superior students to pursue advanced work and independent research.

Respectfully submitted,

T. M. SIMPSON, *Dean*

REPORT OF THE DEAN OF THE COLLEGE OF ARTS AND SCIENCES

To the President of the University:

SIR: I submit herewith the following report on the activities of the College of Arts and Sciences, including the School of Pharmacy, for the biennium ending June 30, 1944.

CURRICULAR REVISIONS

The College maintains a Curriculum Committee, whose duties comprise in part the study of proposed changes in course offerings requested by the different departments and the recommendation of action to be taken on them. The College also has a special committee on Educational Policy and Program. This committee is concerned chiefly with the fundamental trends in modern liberal arts education. From time to time it reports its recommendations to the faculty for consideration. During the past two years, various curricular improvements have been effected, after careful consideration, in order to meet the needs of a better educational program. Only the more important advancements will be recorded here.

The correlation of certain of our courses with those of other colleges on the campus appears to have been solved. In keeping with the University's interest in Latin-American culture, a course in elementary Portuguese has been initiated. The future development and the introduction of other modern language courses will be kept in mind. Some courses in physics have been revised and strengthened, and special improvements of benefit to electrical engineering students have been made in this subject.

There have been no sweeping curricular revisions in the courses offered by some of the departments. In certain departments studies of the advisability of increasing the course offerings are being made.

IMPORTANT PROBLEMS AND PROJECTS

Anticipating the return of those students who entered the armed services short of graduation and of other ex-service men, we are making plans to facilitate the instruction of these men as well as of younger men. This instruction will be primarily concerned with speed, flexibility, and individual course requirements. However, studies are also being made of other specific problems.

A special committee is now planning closer cooperation among the existing guidance agencies of the University in order to render the most efficient service possible to veterans and other students. A coordinating committee representing the College of Arts and Sciences and the College of Education is making a critical study of the psychology offerings in both colleges with a view to advancing teacher-training and other phases of that subject. The Committee on Educational Policy and Program is making a comprehensive study for the purpose of better integrating the educational relationship of the College with the College of Education as a whole, which should be of especial benefit to the students of education. Discussions now under way will, we hope, result in the expansion of courses in sociology which are basic to the training in social administration. The success of this expansion will entail the employment of a staff member trained and experienced in the field of social administration.

Counseling with students has been exceedingly difficult during the biennium because of unsettled and changing conditions. It is to be hoped that we can strengthen our counseling and guidance service, particularly for those who will be undertaking the difficult transition from participation in the war to life on the campus.

NEW FACILITIES

As a result of acquisitions during the war training programs, the equipment for instruction in elementary laboratory courses in physics has been increased. We are regularly adding to the equipment of the Speech Clinic. The most important recent addition to the Clinic is the audiometer. Preparing to utilize visual aid in journalism instruction where it may be of inestimable value, we have lately added to the Department of Journalism a Spee-Dee duplicator for reproduction of forms and material useful in advertising and editing courses. The Department of Chemistry has acquired such new equipment as turbidimeters, apparatus for potentiometric determination of hydrogen in concentration, and catalytic reaction chambers and distillation columns, including microcolumns.

FACULTY PERSONNEL AND WAR ACTIVITIES

To give a detailed account of the accomplishments of all the members of the College faculty would require too much space. They have carried on in a satisfactory degree their normal scholarly interests in spite of the extraordinarily trying conditions under which they have worked. They have been active in research, in the publication of articles and reviews, and in the editing of learned journals. They have served as consultants and attended meetings of scientific and other professional societies, have held offices in national and State organizations, and have engaged in many other educational pursuits, as well as rendering valuable assistance to the war effort.

Seventeen members of the staff are now on leave of absence serving in the armed forces or rendering highly specialized services directly to the war effort. Many of those who have remained on the campus have devoted much time to the development and teaching of courses in the war training programs. Others have contributed to the war effort through service with the following organizations: Local Board No. 2, Alachua County Selective Service, the Alachua County War Price and Rationing Board, the Defense Training Schools of the county, the Office of Scientific Research and Development, the Speakers' Bureau of the Alachua County War Finance Committee, the State Defense Council, and

the Speakers' Bureau of the Alachua County Chapter of the American Red Cross.

The Director of the Bureau of Vocational Guidance and Mental Hygiene has received national recognition for his clinical work in the Bureau by being appointed a member of the Committee on Clinics of the American Association of Applied Psychologists, which establishes standards for psychological clinics in this country.

Dr. Elmer E. Frahm resigned his position as Associate Professor of Agricultural Chemistry on April 1, 1944. His work for the remainder of the semester was assumed by other members of the staff. J. E. Johnson, Professor of Bible, passed away on November 24, 1943. He served the College with distinction and will be greatly missed. Dr. L. M. Bristol, as his special assignment for the remainder of the academic year, took charge of the classes formerly taught by Professor Johnson. Eleven members of the faculty were promoted in rank during the biennium.

The immediate postwar period will entail readjustments in the lives of the people of Florida, in which the Department of Sociology can make a constructive contribution through extension and research activities. This will be possible through the allotment to sociology of an increase in its staff. By this addition to the instructional force, we shall also be able to develop the training contemplated in social administration.

It is recommended that the facilities of the Bureau of Vocational Guidance and Mental Hygiene be extended in order to serve more effectively in the vocational rehabilitation work of returning veterans.

The Naval Stores Research Project has been considerably handicapped by the turnover in personnel of properly trained men. However, definite progress has been made on some of the problems under study. It is recommended that the present organization remain intact even though it may not be possible to fill the assistantships until the emergency has passed.

It is urgently recommended that the proposed budget of the College, including the School of Pharmacy, for the ensuing biennium be approved. The recommendations are based on several hundred pages of factual information collected and studied by the Equity Committee and the Dean.

SCHOOL OF PHARMACY

No changes were made in the curriculum although the subject matter in most courses was revised in accordance with scientific advances. The need for trained pharmacists caused the Selective Service System to defer the drafting of some pharmacy students, thus maintaining enrollment at a relatively high level during the early part of the biennium.

The Bureau of Professional Relations was continued by a grant of $7,000 from the Florida State Board of Pharmacy. Approximately 100,000 pieces of literature are mailed annually to all drug stores and physicians in Florida. Requests for literature come from almost every state. Exhibits have been presented before two graduate short courses for doctors of medicine.

New facilities include the addition of several journal sets to the Library and new pieces of research equipment. The Medicinal Plant Garden was improved by adding: (1) a medicinal aboretum with a central group of camphor trees to be dedicated to the founders of the School of Pharmacy; (2) more herbs and flowering plants; and (3) a sun-dial which was a gift from the Kirby-Smith Chapter of the United Daughters of the Confederacy.

Only one change occurred in faculty personnel, which was the resignation of the Associate Director of the Bureau of Professional Relations to enter the armed services.

Recommendations for improvement include a practice drug store, more laboratory space, and enlarged animal quarters. The Medicinal Plant Garden needs a summer supervisor and a sprinkling system. The collection of native medicinal plants should be increased. Whenever graduate work returns to its prewar level, an additional instructor should be employed.

Respectfully submitted,

TOWNES R. LEIGH, *Dean*

REPORT OF THE PROVOST FOR AGRICULTURE

To the President of the University:

SIR: I submit herewith the reports of the three divisions of the College of Agriculture, namely, Resident Teaching, the Agricultural Experiment Station, and the Agricultural Extension Service. The report of the School of Forestry and of the Conservation Reserve for the biennium ending June 30, 1944, is also included.

Respectfully submitted,

H. HAROLD HUME, *Provost for Agriculture*

REPORT OF THE DEAN OF THE COLLEGE OF AGRICULTURE

To the President of the University:

SIR: For the biennium ending June 30, 1944, the following report for the Teaching Division of the College of Agriculture, the School of Forestry, and the Conservation Reserve is respectfully submitted.

During the biennium there has been a gradual reduction in the number of students registered in the College of Agriculture. Many students already in attendance and others in prospect have been taken into the armed services.

In addition to caring for the needs of the few students in residence, the members of the faculty of the College of Agriculture have assisted in teaching such subjects as geography, mathematics, and physics to various groups of trainees at the University. All have been fully employed, and many have carried work loads heavier than they should have. As most of the faculty are in the older age group, the number called for military service has been small. H. G. Hamilton, Professor of Marketing, has been on leave with the Bureau of Agricultural Economics, United States Department of Agriculture, and is assisting in the distribution of agricultural products. Douglas J. Smith, Assistant Professor of Animal Husbandry, has joined the United States Army, as also has J. E. Pace, who had replaced him on temporary appointment. John V. Watkins, Assistant Professor of Horticulture, resigned to take up commercial work. E. E. Frahm, Assistant Professor of Agricultural Chemistry, resigned to accept a position in another institution at an increased salary. P. H. Senn, Head

Professor of Agronomy, has assisted the Agricultural Extension Service in carrying through the State Labor Program.

Curricula of the College have been carefully reviewed in preparation for the increased enrollment that is expected when war ceases. Attention has been given to equipment and facilities in order to keep the laboratories and other essentials for instruction up-to-date.

A two-year curriculum to meet the needs of returning soldiers has also been worked out. The College of Agriculture is well prepared to meet the requirements of service men interested in pursuing careers in agriculture after they return to civilian life.

SCHOOL OF FORESTRY

The School of Forestry has adjusted itself to the wartime schedule. The 1942 Summer Camp was held on forest lands of private ownership wherein the required field training was combined with a practical land survey and timber cruise of much value to the war program. The Director of the School was authorized to cooperate during the 1942 summer season with a large cork company in furthering its timber war program in the South. During 1942-43 the ROTC students who were retained on the campus afforded candidates for graduation that year, but since then the Forestry Club and similar organizations have ceased their activities for the duration. Some courses in forestry have been continued for the ROTC contingent detailed here during the fall session and for the civilian students. Otherwise, the resident teaching faculty has been employed either full-time or part-time in teaching mathematics and civil air regulations to Air Corps trainees; in handling food preservation tests for the Quartermaster General's Office, Washington, D. C.; and in conducting special research.

Some members of the teaching staff have received leaves of absence to serve in the United States Armed Forces or to enter government service. P. W. Frazier, Assistant Professor of Forestry, is a Captain in the Quartermaster Corps, and W. B. DeVall, Instructor in Forestry, is filling the position of Project Forester, District No. 3, for the Timber Production War Project. E. A. Ziegler, Professor of Forestry, is Industrial Specialist and Head of the Timber Production Section of the War Production Board. These men will probably be absent for the duration of the war.

Research has been continued, insofar as it is compatible with the personnel shortage, at the Austin Cary Demonstration Forest, the Welaka Conservation Reserve, and the Wood Products Laboratory. Problems in Silviculture and Forest Utilization have been given precedence in the program. Salvage cuttings and thinnings of pulpwood upon the forests have contributed at least in a small way to the timber production requirements of the war. In the meantime, the School has coordinated its postwar planning with that of related forest agencies in Florida and other parts of the South.

During the biennium, construction of the Forest Products Laboratory was completed.

The School was accredited by the Society of American Foresters in 1943.

UNIVERSITY OF FLORIDA CONSERVATION RESERVE

The Conservation Reserve was placed on a purely maintenance basis. Buildings and equipment have been kept in good condition against the time when they will be used again by students. A splendid record for fire protection has

been established through the active assistance of the employees on the Reserve, and a pine tree planting program of 10,000 seedlings yearly has been carried out with satisfactory results. The condition of the forest growth on the property is excellent.

W. M. Dunson, Superintendent in Charge, is in the United States Army. During his absence, Mrs. Katherine L. Jacobson has carried on most satisfactorily.

Respectfully submitted,

H. Harold Hume, *Dean*

REPORT OF THE DIRECTOR OF THE AGRICULTURAL EXPERIMENT STATIONS

To the President of the University:

Sir: I respectfully submit the following report of the University of Florida Agricultural Experiment Stations for the biennium ending June 30, 1944.

During the past biennium, the objectives of the research conducted under 175 projects by the 8 departments of the Main Experiment Station, the 5 branch stations and the 6 field laboratories were to obtain findings which would be of utmost assistance in the maximum production of food, feed, and other plant materials for the all-out war program. The results of these researches may perhaps be best evaluated by Florida's agricultural production, which has exceeded by far that of any previous similar period, and which has met all production goals. These results came from many different lines of investigation, including cultural and management practices of numerous agronomic and horticultural crops; control of animal and plant pests with emphasis on substitute fungicides and insecticides; identification and correction of soil deficiences which affect plants and livestock; nutritive values of foods and nutrition of rural children; economic plant and animal breeding programs for adaptability and quality; livestock management practices; new plant introductions and experimental plantings of rubber producing, cordage, and fiber plants; processing, packaging, storage, and handling of vegetables, fruits, and meats; collection and analysis of marketing and production data; and utilization and conservation of basic resources. In addition, different types of services which were incidental to wartime emergencies were rendered and aided in the attainment of agricultural goals, as well as in the allocation and use of fertilizer and feed constituents. Active cooperation was maintained with Federal and State agencies in the promotion and conduct of numerous and varied agricultural production activities.

Brief statements of some of the accomplishments are given in this report. More detailed discussions of the work are given in the Annual Reports for 1943 and 1944 and in the 27 station and 28 press bulletins published during the biennium. Over 150 articles dealing with numerous phases of Florida's agriculture were published in scientific journals, and in farm and trade papers.

ADDITIONAL FACILITIES

Two tracts of land were purchased during the biennium: one comprising 160 acres near Gainesville for use in pasture research; the other, 185 acres adjoining the present main station farm for additional farm crops research. Also, an additional grant of 70 acres of land was made by Hardee County for use by

the Range Cattle Station. A branch station for West Florida was authorized by legislative enactment, and the third Mobile Unit attached to the North Florida Station was activated.

The reconstruction of the Experiment Station building has been completed, and by action of the Boards of Education and Control the building was dedicated Wilmon Newell Hall in honor and memory of the late Director Newell.

EDITORIAL AND MAILING DEPARTMENT

Wartime difficulties which handicapped the printing industry curtailed the printing of Experiment Station bulletins during the second half of the biennium, and only 10 new bulletins were published, making a total of 27 for the biennium. In addition 2,500 copies of a 92-page bulletin published during a previous biennium were reprinted. The new bulletins ranged in pages from 8 to 112, totaling 788 pages. Editions printed varied from 4,000 to 25,000, and totaled 173,000 pages.

Eleven new press bulletins were printed the second year, compared with 17 the first year. Press bulletins reprinted numbered 9 the first year and 3 the second. The press bulletins ranged from 2 to 6 pages in length and from 3,000 to 15,000 in edition, but consisted mostly of 4 pages and 3,000 copies. A total of 104,500 copies of new press bulletins was printed.

A vast amount of Experiment Station information was disseminated through radio talks over WRUF and other stations, through scientific journals, through articles in farm papers with State, Southern, and national circulation, and through newspapers.

LIBRARY

Material for 1,013 volumes was sent to the bindery and 1,528 volumes were received by purchase, gift, or exchange. A total of 22,573 documents, bulletins, and continuations were received and prepared for the shelves. The total number of cards added to the catalog was 36,099. Of these, 25,217 were made in the Library. At present, 42,581 author cards from the Library's catalog are included in the University's Central Catalog. This Library will keep its acquisitions current in that catalog.

An allocation of General Education Board funds for filling-in of periodicals and the purchase of valuable research publications has added a total of 20 new periodical titles and 23 fill-in titles and permitted the purchase of 104 books.

A total of 5,628 pieces of reserve material was used by 3,201 students; 3,026 books were lent to faculty and graduate students and 467 volumes to branch stations and field laboratories.

HORTICULTURAL PROTECTION SERVICE

Intensive work in the frost forecasting service, conducted in cooperation with the United States Weather Bureau, covered the whole of the peninsula. In the administration of the forecasting and temperature survey work this area was subdivided into 10 districts in charge of 8 assistant meteorologists attached to the Lakeland office, each of whom was assigned for the winter within the local area under his supervision. These 10 districts were equipped with 394 temperature survey stations, all in operation during the biennium. Of these stations, 272 were completely equipped with thermographs so that the duration of critical temperatures could be measured. Results of the temperature survey were

published in 10 mimeographed volumes each year, and at most of the stations complete records have been obtained covering 7 to 9 consecutive seasons. Specialized frost forecasts were issued during the winter season for a network of 81 forecast stations, each placed in a carefully planned location, so that the temperature forecast could easily be adapted to individual farms. During the 1942-1943 season a total of 12,231 separate temperature forecasts were made, of which 94.8 per cent were accurate and 98.1 per cent within 3° F. of being correct. In the 1943-1944 season a total of 12,312 forecasts were made, of which 95.3 per cent were accurate and 98.7 per cent within 3° of being accurate. Forecasts were distributed twice daily through a network of 21 commercial radio stations, as well as by telephone and telegraph services and by the daily press. A specialized shipper's forecast and localized rain forecasts were furnished daily to interested shippers and growers. Considerable research in frost protection was conducted at the meteorological laboratory near Lakeland and at other sites. During the summer seasons the field men were assigned to assist in the special hurricane weather service, and the meteorologists of the Lakeland office were assigned to the forecasting staff of the District Hurricane Forecast Center.

AGRICULTURAL ECONOMICS

Some of the investigations of this Department, on which publications were issued, pertained to: (1) trends in the financial structure, the services, the failures and successes of citrus cooperatives; (2) labor and material requirements for crops and livestock; (3) adjustments for greater profits on small flue-cured tobacco farms. Mimeographed summaries of the tenth annual study of cost of production and grove organization were issued, and manuscripts on the investigations of 9 years of successful cooperative grove operation and on Florida Farm Prices, covering a combined monthly and annual price index of 37 Florida farm products from 1910 through 1943, have been prepared for publication.

Motion and time studies for more effective utilization of farm labor have resulted in the following motion pictures: Harvesting Celery; Labor Saving Devices on Celery Seed Beds; Setting Celery; Packing Citrus; Picking Beans; Stumping Land. A faster method for tying staked tomatoes was developed and a poster was prepared for use in the staked tomato area, entitled "Save Work—Save Time in Tying Staked Tomatoes."

Much time was given to assisting the Federal Bureau of Agricultural Economics and the Florida State Planning Board in estimating the maximum wartime agricultural production capacities of Florida and in the formulation of postwar plans for Florida agriculture. This resulted in the following mimeographed materials: (1) a general report; (2) a special citrus report; (3) a special truck crop report; (4) a special labor report; (5) Florida Post-War Agriculture—a preliminary Report of the Southeast Region Post-War Planning Committee, February 29, 1944; and (6) the Report of the Committee on Post-War Planning for Florida Agriculture, January 6, 1944.

In addition, the data in *Florida Truck Crop Competition*, Station Bulletin 224, were brought up to date by mimeographed supplements, and the various summaries since 1928 of the movement of citrus trees from nurseries to groves in Florida, made cooperatively with the State Plant Board, were continued and made available in mimeographed form. The study of breeding efficiency and depreciation in Florida dairy herds, in cooperation with the Department of Animal Industry, is being continued.

AGRONOMY

Variety and strain testing, including the introduction and trial of new crops, cultural and fertilizer requirements of field crops, breeding and selection of improved crops, proper rotations with soil-building crops, and pasture establishment, management, and evaluation received major attention. Wide variation for best production and quality on the several soil types was found in the fertilizer requirements of corn, cotton, peanuts, tobacco, chufas, sugarcane, and pasture and forage crops. The role of sulfur and the use of liquid fertilizer are under study. In general, corn, cotton, and the grasses responded most to nitrogen in a properly balanced fertilizer, peanuts but little to any fertilizer, and bright tobacco showed marked response to a properly balanced fertilizer carrying ample potash. The legumes were very responsive to lime, phosphate, and potash. Trace element needs of crops have been studied and zinc, copper, manganese, boron, and magnesium were found necessary for maximum yields and best quality of certain crops.

Through breeding and selection, outstanding strains of cotton, corn, peanuts, oats, Napier and other grasses, clover, and sugarcane have been developed and distributed. Crop rotation studies clearly indicated the value of proper sequence of crops to avoid disease and insect damage and to maintain soil fertility and profitable crop yields. All crops responded to good rotation practices.

Pasture investigations were expanded to include a wider variety of soil and climatic conditions. Many phases of pasture establishment, management, and evaluation were studied to find plants and plant combinations which, when established and properly managed, will give year-round grazing. Clovers, grasses, and the Florida rust-resistant oats produced satisfactorily in the trial plots and are being increasingly planted by growers.

ANIMAL INDUSTRY

The research of this Department was conducted in the fields of dairy husbandry, animal nutrition, beef cattle, sheep and swine, veterinary science, poultry husbandry, and dairy manufactures.

Feeding trials with citrus molasses showed that it may be used to replace cane molasses in mixed dairy feeds. Approximately 25,000 tons of citrus molasses were produced during the season of 1943-44, greatly relieving the shortage of molasses in mixed feeds. Experiments showed that urea in solution may be added to sorghum as the cut forage goes into the silo, thereby increasing the potential protein value of the silage. Dairy cows consumed plain sorghum silage and that containing 0.5 per cent of urea without hesitation. Silage containing 1.5 per cent urea was less palatable, but all was eaten. Cows avoided silage containing 2.5 per cent urea. Because of the scarcity of bonemeal, another source of phosphorus for livestock was imperative. Feeding trials with beef and dairy cattle, swine, and poultry showed that defluorinated superphosphate was a satisfactory source of phosphorus for all classes of farm animals.

Steers were grazed on seven different types of pasture plantings with and without legumes and with various fertilizer treatments. Values of the various pasture plantings were determined by increases of body weights. Blood samples were drawn and analyzed to detect any differences in composition in the blood of steers. Mineral supplements made available to hogs grazing on peanuts increased pork production 25 per cent over that where no supplements were supplied.

Sanitation has been proved the greatest factor in controlling mastitis in dairy cattle.

Research with poultry included feeding trials to determine rations that would conserve feeds. Labor-saving management methods that may enable the poultrymen to continue operation under a severe labor shortage have been developed.

It was shown that cream produced in Florida may be stored for a twelve-month period without any oxidized flavor being produced. Investigations to find a substitute for serum solids in ice cream were completed. Wheat flour was found to be the most satisfactory product in making a good quality ice cream and may comprise from 2.0 to 2.5 per cent of the mix.

ENTOMOLOGY

Nematode control has received major attention through experiments with resistant varieties and mulching. Some seed of an apparently resistant strain of conch cowpeas was produced and distributed; a number of truck crops have responded favorably to the use of mulches in overcoming nematode injury.

New soil fumigants and insecticides have been tried, among which DD (dichloropropane-dichloroprophylene) and DDT (Dichlorodiphenyltrichlorethane) have given quite satisfactory results. The former has proved effective in controlling both soil infesting insects and weeds; the latter in controlling truck crop and household insects.

The life history, seasonal abundance, and control of cutworms have been under investigation, and some progress has been made in the control of pecan case bearers.

Much time was given during the biennium in assisting victory gardeners to solve their numerous insect problems.

HOME ECONOMICS

The study of the relation of the school lunch to child health and progress, begun four years ago, has demonstrated the value of an adequate feeding program. The effects of better food on two groups of malnourished rural school children are shown by unusual increases in physical measurements and development, improvements in general health, school attendance, and progress. Except for beginners and children transferring from other schools, there are now no cases of severe or gross malnurtition in these two groups. Dental examinations and Roentgenograms made in 1942-43 showed the prevalence of caries and delayed maturation of the wrist bones, and re-examinations indicate that the prescribed dietary regimen lowered the incidence of caries and accelerated calcification of bone centers. At the initiation of the program the food intake of many of the children was very low, due primarily to poor appetites and irregular eating habits. During the four years there has been a gradual increase in food intake, and now food consumption meets the recommended standards for children of school age. Dietary studies show striking improvements in home diets. There are increases in the consumption of protective foods with changes in farm programs to provide these foods for home use.

The vitamin A and C content of Florida fruits and vegetables showed no unusual variations from accepted averages. Occasionally, there was a value significantly different from the average and the reason for the variation merits further study. High values found in wild greens suggest their importance as an adjunct to rural diets. Further studies on the purified acid from royal jelly

($C_{10}H_{18}O_3$) indicate that the acid may have vitamin-like or pharmacological properties.

HORTICULTURE

Many data obtained through research were compiled for use in assisting the developing of a wartime State food production program. These included food, fiber, oil, and rubber crops and the preservation of vegetables, fruits, and nuts.

It was shown that Florida-grown vegetables are well suited for dehydration and produce satisfactory products for rehydration. Certain vegetables, when wrapped in pliofilm, kept in excellent condition both in cold storage and in transit in carlot shipments. Methods of citrus juice concentration by freezing and centrifuging were developed and provide a concentrate which can be kept frozen indefinitely and which, with the addition of water, produces juice that is equal to the fresh product. Cold storage studies brought out improved methods of handling and storing of fruits. It was found that vitamin C concentration was greatest in small cabbage heads regardless of soil and area where grown. Ash per cent was greatest in bean plants grown on less acid plots due to increase in calcium content but percentages of manganese, iron, and magnesium increased as the degree of soil acidity increased. Growing conditions in various locations markedly affected percentage dry weight of cabbage, beans, and tomatoes. The amount and kind of fertilizer necessary in onion production and the value of suitable cover-crops properly handled in potato production were determined.

In cooperation with the U. S. Field Laboratory for Tung Investigations the deficiencies of magnesium and copper in tung trees were demonstrated. The correction of these should materially increase the yield, which in Florida in 1944 was estimated at 2,750,000 pounds of oil. Better methods of pecan orchard managment have been investigated, and pecan oil, following Station research, is now recovered in commercial quantities.

New nematode-resistant stocks of peaches are being tested, and trial plantings with herb, rubber, fiber, and drug plants indicate that certain of these might be grown to advantage in Florida. Sansevieria plantings are being conducted cooperatively with the U. S. Department of Agriculture.

PLANT PATHOLOGY

The control of plant diseases continues to offer many different problems which need to be approached from various angles. Seed treatments of cabbage, lettuce, lima beans, peanuts, soybeans, spinach, and sweet corn with the organic compounds arasan, fermate, and spergon were as good as, or better than, compounds of copper, mercury, and zinc for preventing seed decay of lettuce in soil infested with Pythium. Seed treatment increased germination of machine-shelled peanuts much more than it did hand-shelled. None of the seed treatments protected the seedlings against post-emergence damping-off for more than ten days after emergence.

Different isolates of Rhizoctonia showed various degrees of pathogenicity to any one variety of host plant, but it was not determined whether these isolates represent different species or merely biologic forms.

Drenching the soil with ethyl mercury phosphate gave the best control of *Sclerotium rolfsii* Sacc. which attacked growing plants of Tangiers Iris and Caladium. Treating infected bulbs with hot water did not kill the fungus without also killing the bulbs.

Progress was made in developing a variety of eggplant resistant to Phomopsis

leaf blight and fruit spot, but the new variety has not been tested sufficiently to release it for commercial production.

A total of 26,087 plant specimens was added to the Herbarium, many of which were acquired through exchanges and gifts. The largest number acquired as a single gift was the Severin Rapp collection of 15,770 specimens.

Because of their importance to the cattle industry, many identifications of plants known to be poisonous to livestock were made, and the information given to stockmen.

SOILS

A study of soil and plant relationships under pasture conditions from the standpoint of establishing and maintaining pasture covers was initiated during the biennium under discussion. In this, most emphasis was placed on the leachability of potash from the open mineral soils of Northern and Western Florida and the fixation and availability of phosphates from soluble and insoluble sources. Work with some of the minor elements in this same field indicated that copper, manganese, and zinc, when broadcast on the surface, were fixed in the topsoil much the same as phosphorus; also that there is no great increase in the plant content of these three elements following their application to any of the mineral soils studied to date.

A study of the significance of type and treatment of the soil and its effect on the nutrient quality of truck crops was initiated. The first or survey phase of the work consisted of the collection of a considerable number of soil and plant samples of the principal truck crops from areas of known soil type and treatment for complete mineral analysis, including trace elements.

Improvements in methods of analysis, both chemical and spectrographic, were made during the biennium, and particularly the development of a more accurate and rapid method for determining the base exchange capacity of soils. Such studies involved copper, manganese, zinc, cobalt and boron and specifically the effect of various ignition temperatures or other conditions of reduction on the trace elements which plant materials contain. Definite evidence has been obtained, for instance, that, in some materials, heating even to charring temperatures is accompanied by a definite loss of copper.

Legume inoculation studies continued to show a marked advantage of locally isolated and processed strains of *Rhizobium* over ordinary cultures commonly available on the market; also the great value of heavy growths of such legumes as sweet clover, when properly inoculated, in building up the fertility of Florida soils.

BRANCH STATIONS

CITRUS STATION

(Lake Alfred)

During the biennium under review, a more or less standard nutritional program, including the use of such elements as magnesium, manganese, copper and zinc, in addition to the usual fertilizer materials, was recommended for general use. This included a complete program of fertilization and spraying, with modifications for unusual soil conditions. The basis is preventive treatment to avoid the occurrence of mineral deficiencies and insect or disease injury rather than the corrective treatment recommended in the past. The reception of this program has been especially good, and it is being used on a steadily increasing acreage with excellent results.

The effect of proper fertilization and spraying in increasing resistance to cold damage has been mentioned in previous biennial reports. This was further substantiated in the freeze of February, 1943. It is apparently well established that the presence of any mineral deficiency greatly increases the cold hazard, and that proper fertilization and spraying will enable citrus trees to withstand much lower temperatures without damage than was formerly supposed. In adjoining plots subjected to temperatures of 18° F. in this freeze, deficient trees lost all of their fruit and all of the wood up to 2 inches in diameter, while properly fertilized and sprayed trees lost no fruit or wood and not over 5 per cent of the leaves. This resistance to cold was extended to the fruit itself; Valencias from properly treated trees that were filled with ice during the freeze outgrew the damage and some of these were held as late as August 25 in satisfactory condition; whereas fruit on deficient trees turned soft and dropped in a couple of weeks following the freeze. Part of this resistance is apparently due to a decrease in the rate of thawing because of leaf protection and in part to the fact that sufficient leaves are present to "feed" the fruit so it may outgrow the freeze damage.

The increase in the so-called "purple mite" or "red spider" the last few years has necessitated considerable research work, and as a result DN (dinitro-o-cyclohexyl) was introduced into general use for the purpose of controlling this mite. This material, as a substitute for oil, has been used extensively the past two seasons with very satisfactory results.

EVERGLADES STATION

(Belle Glade)

The problems incidental to the production of foodstuffs in the Everglades were given maximum attention during the biennium. Improvement was obtained in varieties of sweet corn. Two new varieties of beans were released and seed houses furnished seed of one of these (Florida Belle) for the planting of several thousand acres. The Great Lakes Variety of lettuce was found to grow well and some of the potato varieties, not now grown here, produced well in experimental plots. Sugarcane No. 762, originated at this Station, is being planted more and more widely throughout the State for the production of sirup and for forage. Onions new to the region, such as Grano, were introduced and are in production. By virtue of its introduction of new and other varieties and of its advocacy of improved methods of culture, fertilization, and pest control the work of the Everglades Station was recognized as an important factor leading up to the awarding of the Army E to Palm Beach County for vegetable production in the Everglades.

The Coastal Bermuda pasture grass selected from one of several Bermudas at the Everglades Station was furnished to 94 cattlemen in 22 counties who came to the Station for planting stock. Other new promising grasses are on test in the Station pastures. Cattlemen continue to be interested in the experiments underway with the Station's registered herd of purebred Devons. Requests exceed the supply for the purchase of breeding stock from the Station herd. Steer feeding experiments, pasture grazed with some feed supplements, were conducted each year. A foundation herd of Brahman cattle has been obtained for breeding and grazing experiments.

The Station entomologist, assisted by a Canadian entomologist, made collections of an insect parasite and sent them by air transport to Australia where

they arrived in good condition. Four shipments by air of insect parasites and predators were received from South America and were released for observation. Several new and substitute materials such as DN, DD, DDT and the cryolites are under test for insect control and results in some instances were quite promising.

Cooperative research with the Soil Conservation Service, U. S. Geological Survey, and other agencies progressed steadily and plans are shaping up for better regional conservation of the organic soils of the Everglades. Soil and plant tissue test methods are in process of perfection and are being utilized to help ascertain the fertilizer requirements of these peat and muck soils.

Among plants that the Station has studied for several years, sansevieria, and especially ramie, are likely to soon be in commercial production. Russian dandelion for rubber has been successfully grown for the past two years.

NORTH FLORIDA STATION
(Quincy)

The research program of this Station was confined primarily to the solution of problems in agronomy, animal husbandry, and the highly specialized crop of shade tobacco.

The distribution of Florilee, a new variety of oats highly resistant to crown rust and immune to smut, represents a substantial contribution to grain crop production in Northwest Florida. It is an excellent oat for grazing and is more prolific than Quincy 1 and Quincy 2 previously distributed by this Station. Small grain testing and breeding work was expanded to include wheat and barley. Continued production of single cross seed corn for commercial producers of double cross Florida W-1 hybrid seed for market resulted in rapid expansion of acreage planted to this hybrid in all counties in Central and Northwest Florida.

The introduction of new grasses, such as Pensacola Bahia, Paraguay Bahia, Coastal Bermuda, and Bermuda 99, represent significant progress in pasture improvement. Plant material of Coastal Bermuda was supplied to many farmers, either directly or through various agricultural agencies. New species of clovers and improved strains of old species likewise contributed to pasture improvement.

Best adapted field and pasture crop varieties and their fertilizer requirements are being determined in cooperation with farmers on predominant soil types in 9 counties in Northwest Florida through the work of 3 Mobile Units. The third Unit was but recently established. These Units, serving 3 counties each, are now in operation in the following counties: Jefferson, Madison, Leon, Santa Rosa, Escambia, Okaloosa, Jackson, Washington, and Calhoun.

A practical year-round program of pastures and feeds for beef cattle, sheep, and swine was developed and demonstrated on a farm herd basis. Feed lot trials with steers and hogs indicate that those practices are most efficient in utilizing home grown feeds.

Fermate applied as spray or dust gave excellent control of downy mildew in cigar-wrapper tobacco plant beds, replacing the critical materials formerly used. The dust treatment, which required much less labor to apply than spray, proved satisfactory in commercial beds. Seeds of the blackshank resistant Rg variety were produced annually by the Station for growers, while experiments were continued to produce root-knot resistant varieties by breeding and selection.

The work of the Station and of the Mobile Units was examined by many groups of farmers and agricultural workers during the biennium.

SUB-TROPICAL STATION

(Homestead)

A spray of dithane (disodium ethylene bisdithiocarbamate) plus zinc sulfate-lime proved greatly superior to copper fungicides for control of severe late blight infection on potatoes in 1943-44, and proved also to be a highly promising spray for tomato blight control. Under severe blight conditions, Pontiac outyielded Bliss Triumph, the leading potato variety, by 122 bushels per acre, a highly significant increase.

Mowed plots significantly outyielded plowed plots in marketable tomatoes per acre in the first year of a land preparation test on marl soil. Grothen, Rutgers, and Stokesdale proved the leading tomato varieties. Adaptation trials of numerous vegetables were conducted on Perrine marl.

Studies to date show that flower bud differentiation of most mango varieties occurs during October and November. New commercially promising varieties of mango were found. Studies were made of mango scab, a recently discovered fungous disease, which is serious in nurseries but apparently of minor importance in commercial groves. Tests showed that the nitrogen requirements of avocado trees under which large quantities of natural mulch have accumulated may be supplied almost entirely by chemical forms. Rough lemon and Cleopatra have proved better than other rootstocks for practically all citrus on Rockdale soil for drought tolerance, yield, and quality of fruit. New and commercially promising varieties of guava were discovered. Plant vigor, yields, and disease resistance of papayas on Rockdale soil were increased by mulching and by growing the plants on level rather than raised beds.

Cryptostegia grandiflora R. Brown and *Pachyrhizus erosus* Urban, sources of rubber and rotenone, respectively, proved adapted to Dade County conditions.

RANGE CATTLE STATION

(Hardee County)

Progress was made in the development of a research program relative to the main production problems of the livestock industry in South Central Florida.

The Station now consists of 2,250 acres and additional acreage will be added upon completion of deeds and abstracts. Physical developments include the preparation, fertilization and seeding of 250 acres for experimental grazing trials, erection of boundary and cross fences, building of pens and installation of scales to facilitate the handling of cattle. The herd consists of 211 animals, an increase of 144 in the two-year period.

The problems receiving attention are: the breeding of beef cattle for adaptation to Florida environment; wintering beef cattle on the range; the effect of fertilization and seeding on the grazing value of flatwoods pastures; mineral requirements of range cattle; the establishment and growth of different grass and clover varieties as influenced by fertilizer, including minor elements, and management practices; and the effect of water control on the establishment of mixed grasses on flatwoods land.

FIELD LABORATORIES

VEGETABLE CROPS LABORATORY

(Bradenton)

Work was initiated and is progressing satisfactorily on several new projects, with research emphasis being placed on those designed to increase production

in line with national emergency requirements. Variety recommendations with the more important vegetable crops were made and reported.

A new variety of bell pepper, Manatee Wonder, was released by this Laboratory. Its virtues are (1) that fruits are borne pendant; (2) that fruit walls are thick; and (3) that it is productive in Florida. The pendant fruiting character minimizes danger from sun-scald; the thick wall feature makes the variety resistant to blossom-end rot.

In a breeding project designed to incorporate resistance or immunity to several important diseases into new varieties of tomatoes especially adapted to Florida conditions, several lines carrying "immunity" to Fusarium wilt were developed. These need only further testing for yield before one or more can be released.

Field studies of various insecticides and fungicides with different vegetables were continued, with several of the new organic materials showing much promise. These control phases of research are being considered as preliminary, and whenever possible, the breeding of varieties resistant or immune to diseases and insect pests is primarily emphasized.

WATERMELON AND GRAPE INVESTIGATIONS LABORATORY
(Leesburg)

Wilt resistant lines of watermelons developed previously were continued on soil fully inoculated with the wilt organism (*Fusarium niveum* EFS), in comparison with commercial, susceptible, varieties such as Cannon Ball, Tom Watson, Stone Mountain, and Dude Creek. Of these lines as judged by size, shape, color, yield and quality of melons, color of flesh, and color of seed, the Blacklee seemed highly desirable and was released for commercial use.

Experimental work on varieties, nutrition, and disease control of grapes was continued.

POTATO INVESTIGATIONS LABORATORY
(Hastings)

Tests proved that spread of late blight from affected to healthy seed potatoes can be prevented by storing them in buildings where they are kept dry. Profitable increases in yield of Sebago and Katahdin potatoes were obtained by planting 30 bushels of seed per acre, which exceeds the standard rate of seeding by 50 per cent.

A control developed for downy mildew of cabbage in plant beds consists of spraying or dusting the plants 2 or 3 times each week with spergon spray (2 pounds wettable spergon dust to 50 gallons water) or 12 per cent spergon dust. The treatment gave best control when started before the plants were attacked by mildew and when made with power-operated or traction sprayers or dusters.

Of 27 cabbage varieties tested, none proved superior in yield or quality to the best strains of the standard varieties, Copenhagen Market and Glory of Enkhuizen.

Cabbage plants transplanted 8 inches apart in 40-inch rows yielded more than those spaced farther apart and removal of stubble after each harvest failed to increase yields.

STRAWBERRY INVESTIGATIONS LABORATORY
(Plant City)

In research with strawberries and vegetables the Klonmore strawberry variety proved satisfactory for use in Florida. Treating lima bean seed with spergon

or arasan increased the yield by retarding the development of collar rot. Damping-off of vegetable seedlings was prevented by treating Rhizoctonia infested soil with chloropicrin or methyl bromide, and mixing two strains of Rhizoctonia in the soil resulted in reduced pathogenicity of the fungus to the host plant.

CELERY INVESTIGATIONS LABORATORY
(Sanford)

In the studies on the effect of different levels of calcium, magnesium and potash on the boron requirements of celery, indications point to a greater need of boron with a higher potash ratio in the fertilizer. Great Lakes lettuce showed greater resistance to hot weather and tip burn than any other variety yet tested. Irish potatoes, snap beans, and tomatoes were added to the variety trials. All gave promise of proving valuable crops to grow with celery.

Outstanding results were obtained with DDT in controlling cabbage worms, plant bed insects, corn ear worm, and bean leaf rollers and hoppers. Quantities as low as 1 ounce per 100 gallons of spray were effective in some cases. Trials for the control of nematodes by various soil treatments are under way.

PECAN INVESTIGATIONS LABORATORY
(Monticello)

The work of this Laboratory was conducted cooperatively with the USDA Bureau of Entomology and Plant Quarantine. It was confined chiefly to the control of the pecan nut casebearer, and progress was made in the satisfactory use of tar oil, nicotine sulfate, arsenicals, and bordeaux, singly and in combination, at the various stages in the life cycle of the insect.

The closing of this biennium marked the passing of two of the noted leaders of the Agricultural Experiment Station. Dr. Wilmon Newell, Director since 1921, died October 25, 1943, and Dr. Peter Henry Rolfs, Director from 1906 to 1921, died February 25, 1944. These men directed the affairs of the Station for thirty-seven of its fifty-five years of existence.

Respectfully submitted,
HAROLD MOWRY, *Director*

REPORT OF THE DIRECTOR OF THE AGRICULTURAL EXTENSION SERVICE

To the President of the University:

SIR: Herewith the report of the Agricultural Extension Service of the College of Agriculture for the biennium ending June 30, 1944, is respectfully submitted.

The Agricultural Extension Service has devoted much attention to emergency programs connected with the country's war effort, and to those things stressed by the War Food Administration, of which the Extension Service has been a part since March 26, 1943. Many usual procedures have been modified to meet urgent demands and immediate needs. Many employees have entered the military services and others have accepted positions offering higher incomes.

The State Extension Service has served as the main collaborating agency

dealing with agricultural adjustment, soil conservation, and emergency farm labor. In addition, it has cooperated with the Federal Surplus Commodity Corporation, the Farm Credit Administration, the Federal Marketing Service, Selective Service Boards, and State and County War Boards. County Agents have served as usual as the connecting agency between the State and the counties.

In addition to carrying on his normal administrative duties, the Director of Extension has served as administrator of the soil conservation district law; as a member of the State Defense Council; as a member of the U. S. Department of Agriculture War Board; as director of the emergency farm labor program; and on other wartime committees. The supervisory and specialist staffs serve as committeemen in various organizations interested in feed and food production and conservation. The county agents serve on many local committees and in civic clubs, and act as secretaries to county AAA committees, county USDA War Boards, and Soil Conservation District Supervisors.

These extra duties have diverted many of the educational programs from the usual plans as set up during peacetime. The programs are directed to meet emergencies and to foster and promote the best interests as outlined by the War Food Administration in cooperation with State agencies serving agriculture.

Food Production divisions of the U. S. Department of Agriculture were consolidated into one unit, the Food Production Administration, on March 26, 1943. The Extension Service was included in the executive order.

Extension projects included administration, publications, and printing; county agent programs; home demonstration programs; 4-H club work for boys and girls; citriculture; poultry husbandry; animal husbandry; dairy husbandry; agricultural economics; farm forestry; soil conservation; Negro county agent and home demonstration work; and the Florida National Egg-Laying Test.

Personnel: 9 Supervisors; 28 Specialists; 62 County Extension Agents and Assistants; 41 County Home Agents and Assistants; 10 Negro Agents, Men; 10 Negro Agents, Women.

The supervisors and specialists in men's work have headquarters at the University of Florida; the State Home Demonstration Agent and her staff have headquarters at the Florida State College for Women; and the supervisory staff of Negro extension work has headquarters at Florida A. & M. College.

Negro agents serve in counties having the largest number of Negro farmers. Negro extension work in the counties is directed to promote the production of feeds and foods for local supply, through both adults and boys and girls in 4-H club work.

Work in Counties: County agents are serving in 62 and home agents in 37 of the 67 Florida counties. Their programs of work are based on primary farm and home needs in the counties. Supervisors, district agents, and specialists from the State Office supply educational materials and subject matter programs that correspond with the recommendations of the research divisions of the College of Agriculture and the U. S. Department of Agriculture. District agents supervise and the specialists supply subject matter information as a guide in directing the agricultural activities. County agents also have the responsibility of 4-H club work in cooperation with the 4-H Club Division of the Extension Service and serve as liaison agents in the counties, coordinating the activities

of the various branches of the War Food Administration. Their work entails distribution of agricultural programs by contacts, letters, bulletins, and telephone calls; many thousands of farm visits; planning and directing demonstrations; setting up programs and handling farm meetings; conducting tours; and handling encampments for 4-H club work. All of these activities are conducted in addition to miscellaneous regular and wartime demands and the supervision of AAA and farm labor programs.

Florida is divided into three districts, each supervised by a district agent who has the responsibility of selecting personnel, maintaining constructive programs, coordination with specialists and home demonstration agents, arranging for county offices and securing county appropriations, clerical assistance and office space, and assistance at meetings. The State specialists prepare and submit subject-matter outlines to guide procedures in the counties.

FINANCIAL STATEMENT

Receipts

	1942-43	1943-44
Smith-Lever and Bankhead-Jones, Federal	$200,645.82	$200,645.82
Capper-Ketcham, Federal	27,417.72	27,417.72
Clarke-McNary, Federal	1,620.00	1,620.00
State—Salaries	54,214.00	67,980.00
Operating	43,070.00	40,820.00
Continuing Appropriations	5,000.00	30,000.00
County Appropriations	142,504.99	152,504.99
	$474,472.53	$520,988.53

Expenditures

Expenditures	$465,315.44	$503,246.96
Balance carried over	9,157.09	17,741.57
Total Expenditures for the Biennium		$968,562.40

PERSONNEL CHANGES

County Extension agents in the following counties were granted leaves of absence to enter military service: Dixie, Holmes, St. Johns, Bradford, Martin, Citrus, Baker, Sumter, Marion, Bay, Clay and Duval.

From the State Staff:

Wilmer W. Bassett, Jr.—Assistant 4-H Club Agent
Joseph C. Bedsole—Assistant Economist
Dan F. Sowell—Assistant Poultry Husbandman

Resignations to engage in private business:

Ed L. Ayers, County Agent, Manatee County
S. L. Brothers, County Agent, Madison County
James A. McClellan, County Agent, Pasco County
Louis H. Alsmeyer, County Agent, Highlands County
Arthur M. Bissett, County Agent, Highlands County
H. L. Miller, County Agent, Hardee County
R. Holt Howard, Economist, Farm Management
D. E. Timmons, Economist, Marketing

Frequent changes have been made in the personnel for clerical services and labor, many of the replacements having had very limited experience.

PUBLICATIONS

This Division also handles the Agricultural Experiment Station and the College of Agriculture publications and is served by three staff members with clerical assistance.

There are three main divisions, as follows:

(1) The editing, publication, and distribution of bulletins and circulars.
(2) The preparation and distribution of radio materials, with emphasis on the Florida Farm Hour over Radio Station WRUF each day (except Sunday) from 12:00 to 1:00 P.M.
(3) The Agricultural News Service, a clipsheet furnished weekly to Florida newspapers, and other news releases and farm journal articles.

All bulletins supplied to county and home agents are furnished from this office on request. Bulletins are supplied also to individuals requesting them. This informational material forms the basis for subject matter used by Extension personnel.

Farmers' bulletins issued by the United States Department of Agriculture and supplied directly to county offices are approved by the Agricultural Extension Service.

This Division also handles releases issued by the Agricultural Adjustment Agency, the State and National War Boards, and the War Food Administration. These releases are reviewed and interpreted to meet Florida needs and are widely distributed through various agencies, mostly within the State.

Bulletins and Other Informational Material Published and Distributed: The Extension Service has published 11 bulletins, total edition 157,000; 16 circulars, total edition 254,000; other materials consisting of posters, pamphlets, cards, stickers, records, 435,850; Agricultural News Service, 105 editions, total 93,600 copies. It has also distributed daily radio material on timely war topics to 14 radio stations in Florida.

Other miscellaneous duties involved distribution of educational films, charts, maps, and timely material supplied to county Extension offices, civic clubs, and schools, and service as a source of public information wherever these could be utilized.

4-H CLUB WORK

There were 6,036 projects completed by 4,467 4-H club boys. These dealt with the production of corn, peanuts, fruit and garden, dairy, poultry, cotton, tobacco, potatoes, beef cattle, and hogs. The 4-H members are directed by county and home agents. In addition to production and conservation, the boys and girls have training courses for organized studies of rural and farm problems, judging contests and recreation. The members attended 4-H camps each summer. Participation in State and national contests and other events offering recognition for educational accomplishments by 4-H club members was curtailed by wartime conditions.

The State Bankers' Association, private institutions, railroads, and county boards offer scholarships and cash to defray the costs of these awards to 4-H club members.

4-H Regional Camps: Three 4-H State camps are operated, Timpoochee in Okaloosa County; Cherry Lake in Madison County; and McQuarrie in Lake County. Each camp is equipped to handle 125 4-H club members at a time.

Summer camp usually extends from June 15 until August 31. Each group remains at camp for five days and carries out a supervised educational and recreational program. Persons attending are selected on individual records by county and home agents.

4-H Dairy Calf Program: Through cooperative plans worked out between county agents and dairymen, 3,500 dairy heifer calves have been distributed to 4-H club members and to farmers to be grown out and kept as family milk cows. These calves were purchased from well-managed commercial dairies having good producing animals. The delivered cost averaged $5.00 per calf. Many purchased two years ago and now coming into production, valued at $125 each, are producing milk and butter for rural families. Care is taken to see that calves are disease-free and receive proper care by the 4-H club members.

FOOD PRODUCTION AND CONSERVATION

Beginning January 1, 1944, the Agricultural Extension Service was directed by the War Food Administration to enlarge its present program for the production and conservation of foods, feeds and fibers. This order provided funds largely for the employment of assistant agents in counties where such a program would be most appropriate and would return the greatest good for the funds expended.

Nineteen assistant county and home agents were employed. Ninety-five per cent of their time was directed to food production and conservation. They assisted county and home agents in wartime programs, in 4-H club work, and in many other services brought about by war demands on the county Extension offices.

This program was fitted into the Goals Program as set up by the Agricultural Extension Service prior to January 1.

Informational Material: Eleven pamphlets were published for ready distribution. These pamphlets on timely subjects were prepared by Extension specialists and were given a wide distribution to farmers, with the proper emphasis placed on essential war foods and their production in preference to less essential crops.

HOME DEMONSTRATION WORK

Wartime conditions necessarily controlled the activities of all individual families and communities and therefore directly affected the program of home demonstration work. The number of farm families requesting information on food production increased greatly. City and town women called on the home demonstration agents for information on home gardens, poultry, canning and also on governmental regulations affecting their everyday lives. The agents directly helped 21,694 such non-farm families this last year.

Community demands for volunteer war services, coupled with shortages of labor in the home as well as on the farm, showed homemakers the increased importance of efficient home management.

The training in skills and leadership given to thousands of rural women and girls in past years proved its permanent value manyfold under war conditions. These community leaders were ready when war came to give practical information to others and to help with agriculture's wartime work.

Immediate needs of wartime have been emphasized in food production and conservation, food preparation and use, nutrition, health and safety in the home,

safeguarding equipment and supplies, clothing conservation, salvage, government investments and savings, farm labor, leadership, and in maintaining morale and community war activities. Home demonstration agents believed also it was essential for them to keep in close touch with people in their own homes so that home demonstration work would continue to render its first service within those homes, helping to develop a long-time program of education for improvement of people and of family living. Consequently, in spite of travel difficulties and increased duties, organizations of community clubs and councils have been maintained and the training of local leadership has continued; 1,506 training courses on special war activities for 28,622 women and girls were given last year.

Organization and Personnel: Home demonstration personnel at the end of the biennium included 37 county home demonstration agents; 4 assistant agents; 10 Negro home agents; 13 emergency assistants (7 Negro); 4 specialists; 3 district agents; a Negro district agent, and the State agent.

Changes were made in two district positions (one Negro) and in that of clothing specialist. Eighteen changes were made in county home demonstration agents in 1943 alone. This required the use of a large percentage of time for training new and prospective personnel, in addition to in-service training of experienced agents. Fifteen State or district conferences or short courses have been held for this training. Four regional meetings of the women of the State Home Demonstration Council were held instead of one State meeting to aid in developing practical programs. The 4-H Short Course for 4-H girls was not held, but 74 county short courses or camps were arranged.

During 1943, 34,158 rural white families and 4,248 Negro families received direct help from agents. The home demonstration agents made 17,147 visits to rural homes and farms. Negro agents worked with 1,731 women and 2,408 girls enrolled in 127 4-H clubs and with 95 community home demonstration clubs for women.

State and county workers served generally as chairmen or advisers of emergency war programs including the WPB salvage program of Fats and Oils, pressure cooker rationing committees, USDA War Board; home gardens and food conservation committees, State Defense Council; rural women's activities, War Savings Division, U. S. Treasury; State Nutrition Committee; and the State School Lunch Advisory Committee and others. The State agent was State chairman of the first five named.

Emergency Program, Food Production and Conservation: Under the emergency program for increased food production and conservation, assistants were employed to work in 6 counties not employing home demonstration agents; 7 Negro assistants were assigned, 2 on full time and 4 on a seasonal basis, to help Negro families. Part-time clerical assistants were placed in 11 counties. Reports for the three months period show the following results: 2,681 home visits were made; 10,102 bulletins were distributed; 394 meetings were held and attended by 7,549 persons; 582 demonstrations were given; 2,584 families were helped with gardening and 3,053 with food conservation; and 29,992 quarts were canned. These figures are in addition to those in other statistics in this report.

4-H Work with Girls: The 4-H program for girls has not been given as much time as desirable, due to other insistent demands. Not as many volunteer leaders have been available for 4-H clubs as heretofore, because local women

and girls, like the Extension agents, also have had additional demands on their time which prevented much outside service as volunteer leaders for 4-H clubs. Nevertheless, enrollment in 4-H clubs increased by about 1,000 girls this last year. A total of 9,671 was enrolled in 1943.

Negro Work: Ten Negro county home demonstration agents and one district agent worked with 4,248 Negro families last year. Results in increased food production and conservation have been outstanding. A total of 5,240 Negro girls and women was enrolled in 241 homemakers clubs in 1943. All specialists assisted in training Negro home demonstration agents.

Food Production: The long-time goal to keep the family well fed required additional impetus as war made increased demands on food supplies and health. Many farm women and girls did unaccustomed work in the fields to help meet labor shortages and increase food production, and 38,657 home Victory gardens were reported. Wartime food production goals for home gardens and poultry were met and in most counties exceeded. Hundreds of city and town families raised chickens, trying to provide food needed to supplement rationed allowances. Women and girls reported buying 3,322 family cows during the last two years, making a total of 10,763 cows now owned by the present membership. Also 34,842 fruit trees were planted and 2,768 new calendar orchards started.

Food Conservation: Canning in 1943 increased by 400 percent over 1942, the two years' total reported being 4,449,229 quarts of fruits and vegetables; 271,272 of jams, jellies, preserves and pickles; and 623,291 of meats and fish.

Community canning center programs developed in the trucking areas of South Florida to convert commercial surpluses from tomato and other vegetable fields and citrus groves into wholesome ready-to-serve foods and thereby prevent great waste of good food already produced. One county reports 39,893 cans filled during the last season in the five community canning centers, stating that at least 85 per cent of the vegetables canned would have wasted without the organized canning program.

This conservation of such resources through canning in community centers saved food, time, labor, seed, fertilizer, equipment and transportation.

Shortages of small-size canning equipment and the poor quality of some of the wartime pressure cookers handicapped the canning program. Neighborhood groups pooled their equipment. At least 93 small community canning centers were operated this last year under the general direction of home agents.

Nutrition: The war brought a challenge to Florida people to become more self-sufficient by planning, producing, and using the abundance of our available food resources to better effect, nutritionally speaking: 18,179 families reported they planned and produced their own food supply in 1943; 4,304 families enrolled for special help in budgeting and buying quality food wisely. Best methods of cooking food to save nutritive values and for palatability were the theme of 5,421 demonstrations given by home agents this year. Merchants and agents cooperated in working out practical aids to housekeepers in saving and using rationed foods and in spending the ration points to get greatest nutritional values.

Health and Safety in the Home: To maintain or secure good health for each person has been considered a wartime necessity. Cooperation with health authorities has made possible many improvements in health in spite of the shortages of available medical care: 5,729 families reported they had taken definite

measures to improve their health; 1,785 club girls had health examinations by physicians. First aid kits have been made in hundreds of homes; 69 home nursing courses have been given to 810 women who served as neighborhood leaders; and 251 first aid courses were conducted in cooperation with the American Red Cross with an enrollment of 3,613 women and older 4-H girls. Home demonstration agents gave 530 nutrition courses with 7,634 women and girls enrolled, and 57 canteen courses. Home sanitation prevented many costly illnesses. Reports show home demonstration women and girls screened 1,060 homes; installed 676 toilets; repaired 1,249 homes; and painted 1,925 houses and outbuildings. Removal of fire and accident hazards from the home and farm was a state-wide project, especially with 4-H girls. A total of 157 courses was given to 2,756 girls and 4-H girls who agreed to serve as neighborhood leaders in home fire prevention.

The hazards of hookworm have been taught in rural sections and emphasis has been placed on the need of a tested source of home water supply.

Safeguarding Equipment and Supplies—Thrift and Salvage: Pressure cooker "clinics" were held in all counties and 259 sewing machines were overhauled in "clinics."

Florida was the first state to exceed its quota in collection of waste fats. Tin and scrap were collected in great amounts.

Conservation of textile materials required emphasis on remodeling, mending, care and proper storage of clothing. Better home sewing to offset labor shortages and higher costs was urged; and 8,897 families were assisted with clothing construction problems in 1943, an increase of 18 per cent over 1942. During the two-year period 13,116 families were helped with clothing care, renovation, and remodeling. With labor shortages everywhere, 7,071 families reported doing the family laundry for the first time in 1943. Approximately 1,925 houses and outbuildings were painted both for appearance and preservation. Cash savings made through better management and increased incomes have been put away, usually in Government bonds, to be spent later when new equipment is available. A better understanding of the price control program and the possibilities of inflation has been presented in all clubs.

Community Activities: Home demonstration clubs for women and the 4-H clubs for girls are organized on a community basis and assist with or initiate worthwhile community activities: 303 clubs for women had an enrollment of 8,548 adult women in 1943, while 9,671 girls are enrolled in 451 clubs. These clubs, together with county councils, with leaders trained in various skills, have led community or county campaigns or drives as a result of their training in organization. Pioneers in their interest in the school lunch program, home demonstration clubs, both women and 4-H girls, actively assisted in 308 school lunchrooms serving 30,000 children, helping to plan and initiate the program, furnishing recipes and equipment, and acting as volunteer leaders to do the work. Eighty-one community buildings or rooms serving as community centers are owned by home demonstration clubs. Recreation programs conducted in many communities helped to offset any feeling of isolation caused by transportation shortages and to maintain community spirit.

Cooperation and better understanding of mutual needs between urban and rural people is one of the finest results seen in the State growing out of wartime situations.

LIVESTOCK PRODUCTION

The stimulus for higher production of meat and dairy products is reflected in better management of livestock generally Extension workers have encouraged improved management practices and the distribution of high grade and purebred breeding stock. Through the improvement of 250,000 acres of cut-over and prairie lands pastures have been doubled in grazing value. Most of these lands have been fenced.

Dairy producers have faced a shortage of labor and feeds. Some dairies have disposed of herds and many readjustments in feeding practices have been necessary. Emphasis has been placed on improved pastures, the culling of low producers, readjustment of labor needs, and milk deliveries and substitutions in equipment. These are the problems most urgent at present and are considered in their proper place in this adjustment period.

POULTRY

Poultry producers have far exceeded the production goals set up to supply wartime needs. Commercial poultrymen have increased their production and backyard pens and farm flocks have been increased in numbers. Recommendations of the Extension Poultrymen were followed for selection of baby chicks, management of growing pullets, and culling and parasite control, resulting in low mortality in flocks.

Broiler production in 1942 was greatly expanded, but due to higher feed prices it was reduced in 1943.

In cooperation with the Federal Marketing Service, 12,000 cases of surplus eggs were purchased in 1942 and 40,000 were purchased in 1943. These Government purchases have removed temporary surpluses in Florida's farming area.

Forty-six 4-H club members participated in the poultry and egg show held at the Central Florida Exposition in Orlando in 1942.

Florida National Egg-Laying Test: The average production for 1,118 pullets in the Florida Egg-Laying Test was 200.5 eggs per bird in a period of 12 months. The test has been in operation for 17 successive years and is patronized by successful breeders in Florida and other states.

FORESTRY

Florida farmers protected approximately 180,000 acres against fire under plans worked out cooperatively with county agents and the Extension Forester. These lands then became forested with young pine timber. It is estimated that 9,000,000 board feet, valued at $45,000, were protected and saved.

Timber stands improvement through the cutting of cull trees, worked-out turpentine trees, and other trees needed in thinning of timber, is effective in improved farm forest properties. Cooperation was extended to the farm foresters in the Norris-Doxey Farm Forestry and Farm Forest Products program in establishing and improving cutting demonstrations on farms.

One million slash pine seedlings were offered to 4-H club members and vocational students by a local pulp mill. County agents distributed 600,000 of these seedlings, the remainder were distributed by the State Forest Service.

Assistance was given to marketing forest products. Farmers were instructed in estimating standing timber and the value of trees as to their best use. Forestry extension work involved 4-H club members. A program built around good forest

practices has become part of the 4-H program and is rendering valuable service in forestry teaching.

The desirability of a practical plan for the complete and proper development of the State's extensive cut-over land areas is apparent. This is set up in cooperation with the U. S. Forest Service, the Soil Conservation Service, and the Florida Experiment Station to determine a suitable procedure for a coordinated timber-grazing-game program. It is estimated that 75 per cent of the State's cut-over lands can be improved by a constructive program with this in view.

The Extension Forester has taken an important part in a general over-all rural emergency fire protection program.

CITRUS

Restrictions on the use and distribution of fertilizer, spraying material, and a definite shortage of labor have required many changes in the growers' program and necessarily county agents were required to meet these conditions. Many normal activities were reduced, much pruning has been neglected, and fertilizer applications have been irregular. In 1942 committees were established to work out good fertilizing practices and present the needs for essential fertilizing elements. As a part of the program, emphasis was placed on production of cover crops and green manures to make up deficiencies due to the lack of commercial nitrogen.

The uses of dolomitic limestone became widespread after it was learned that this material was a good one for citrus. Boron, zinc, and iron were needed to complete the nutritional program so that production would be increased.

In cooperation with the Florida Citrus Commission, the better fruit program was revised and information was supplied to growers.

Labor conditions made it necessary that growers substitute sulphur dusting for spraying in rust mite control. This, apparently, has proved a satisfactory practice and one more easily accomplished during a labor shortage.

Nutritional sprayings included applications of copper, zinc, and manganese. Groves receiving these treatments have continued to improve and the quality of the fruit indicates that these practices produce satisfactory yields. During drought periods irrigation has been needed, but on account of the difficulty in securing irrigation equipment, growers have been compelled to change cultivation practices.

NEGRO EXTENSION WORK

Negro Extension work has been continued in those areas of general farming where there is a relatively large ownership of farms by Negroes. The Negro educational program has the supervision of the district agents and specialists. The main emphasis has been on production, mostly for local use.

Assistance was given so that colored farmers would receive the full benefit of current prices from their crops. Emphasis was placed on home gardens, poultry, meats, and the conservation of foodstuffs, with special attention given to vegetable varieties in the canning of surplus products.

Two crops received special emphasis. These were sugar cane and sweet potatoes, both of which have a relatively high food value and require good management. Through cooperation with the Experiment Station, selected varieties of sugar cane adaptable to areas were issued to farmers as planting stock.

Puerto Rican sweet potato seed stock was obtained from adjoining states and demonstrations on management of plant beds were carried out by Negro Extension agents.

Five thousand, two hundred and seventy-one victory gardens were reported by the agents. Four hundred and seventy-two Negro families secured milk cows. Four thousand, six hundred fifty-seven Negro farmers cooperated in peanut production. Special emphasis was given to meat curing and meat supplies for family use.

Four-H club work was carried on as usual with 1,560 boys completing their projects, producing essential food crops, in accordance with the war food program.

AGRICULTURAL ECONOMICS

Farm Management: Farm and grove records and income accounting forms are made available to farmers and are supervised by Extension Economists. Grove records on 298 citrus properties have been checked and analyzed to enable growers to check practices and provide data for income tax reports. Records that have accumulated through several years will be the basis for future practices when conditions return to normal.

Similar records are available for use by livestock, forestry, vegetable, and poultry producers.

The National Farm Outlook Program is followed through in each state. The data collected form a basis for annual state and national agricultural outlook statements and furnish a guide to farmers for production and marketing, taking into consideration wartime needs and restrictions.

Marketing: The marketing program has undergone many changes due to marketing restrictions, price ceilings, transportation, and distribution. The Marketing Specialist cooperated with the Florida Canners Association in securing equipment, labor, packaging and storage. He has also rendered assistance to bulb growers in marketing off-grade stock and planting stock; to hog producers in the management of cooperative auction markets; to pecan growers in cooperative marketing and the management of farmers' markets which were set up at four centers in the pecan area, where 300,000 pounds of pecans were sold on a competitive basis at satisfactory prices; to the Florida Division of the American Institute of Cooperation; National Council of Farmer Cooperatives; and to the State Defense Council.

AGRICULTURAL CONSERVATION AND EMERGENCY PROGRAMS

The Florida Agricultural Extension Service works closely with the Agricultural Adjustment Agency. The county agent is secretary to the county agricultural conservation association and to the county USDA war board. In Florida counties AAA, Extension, and USDA war board work is conducted in the same offices.

Enlargement of the output of foodsuffs was the principal activity of the AAA, and incentive payments were made to farmers following designated practices to accomplish this purpose. Materials made available, through which the practices could be given greater efficiency, mostly consisted of seeds and plant foods. Terracing service also was rendered in numerous instances.

The State AAA administrative officer was chairman and the Director of Extension a member of the Florida USDA War Board. State and county war boards

rendered assistance to farmers in connection with farm machinery and supplies, copper wire quotas, construction applications, transportation, farm slaughter and livestock dealer permits, salvage campaigns in rural areas, purchase and support price programs, production goals, and farm labor deferment by selective service.

PRODUCTION GOALS

Production goals covering food and feed crops and livestock products were set up for Florida by the War Food Administration. These goals were then broken down to counties and, in turn, to individual farms.

When goals were assigned to a county the county agent, in cooperation with war board members, allotted the goals to farmers and proceeded to secure a farm-to-farm sign-up. With the exception of peanuts, practically all goals were exceeded, resulting in substantial increases in essential crops, livestock, vegetables, and feeds.

The State also appointed goals committees with Extension specialists as chairmen, and the membership from other personnel in the counties provided informational background dealing with fertilizing practices, varieties, feeding practices, protection against disease and insect damage, and good marketing practices.

The production of essential war crops for the year 1943 is the largest on record and this has been accomplished in spite of shortages in fertilizer, farm machinery, labor, and suitable feed for dairy and poultry production.

SOIL CONSERVATION

The State Soil Conservation program is conducted in close cooperation with the Federal Soil Conservation Service and the Florida Experiment Station. An effort has been made to put soil conservation behind food and fiber production, since soil depleting crops are needed in large amounts for the war effort.

On January 1, 1944, 15 soil conservation districts had been established and five others were in the process of completion. Educational work in the districts is conducted through the office of the county agent, who serves as Secretary to the Board of Supervisors. Reports from 17 counties show that 75 educational meetings were held with a total attendance of 2,520. Twenty-four farm planning meetings were held and attended by 280 people. There were also 21 local demonstrations, 6 tours, and 37 programs before civic clubs.

Each supervisor was supplied with information governing the recommendations of the committee and procedures as set up for the management of this program.

EMERGENCY FARM LABOR

The Emergency Farm Labor Program got under way in Florida about April 15, 1943, following a Congressional Act. Recruiting, transportation, feeding, and housing of inter-state and foreign labor were done under the direction of the War Food Administration. Where laborers were housed in camps, WFA's Farm Labor Division managed the camps, and the Extension Service placed the labor. Recruiting and transportation of local labor were done by the Extension Service. County agents operated labor placement centers in the counties and received requests for labor.

From May 1, 1943, to June 30, 1944, the emergency farm labor program

provided 1,104,279 man-days of labor for Florida farms, as shown in the accompanying table. Of this, 292,700 man-days were performed by domestic Negroes, 82,700 by domestic white laborers, 486,300 by Bahamians, 188,000 by Jamaicans, and 29,600 by war prisoners.

In addition to procuring and placing labor for Florida farms, the Extension Service recruited in this State to be sent to states farther north during the summer months a total of 9,590 laborers from 11 counties, who were sent to 17 states between March 15 and June 30, 1944.

Harvesting Vegetables and Citrus: Harvesting of the 1943-44 vegetable crop required approximately two million man-days, of which 48 per cent or 989,805 man-days were supplied through the emergency farm labor program.

Harvesting the 1943-44 citrus crop of 80 million boxes also required approximately two million man-days, of which this program supplied 14,471 man-days, or approximately 6 per cent.

Surveys indicated that practically no citrus and less than 2 per cent of the vegetable crop were lost because of lack of labor.

Workers supplied to vegetable growers came from the Southern states and the Bahama Islands. Domestic citrus laborers were recruited primarily in Missouri, Arkansas, Mississippi, Alabama, Georgia, Tennessee, North Carolina, Virginia and Maryland. Sugar cane workers were principally domestic Negroes, Jamaicans, Bahamians, and war prisoners.

Workers were housed in private camps and in 24 farm labor centers operated by the War Food Administration.

MAN-DAYS SUPPLIED BY EMERGENCY FARM LABOR PROGRAM—FLORIDA

Harvesting Potatoes, Vegetables, and Sugar Cane:

1943						
April-June	July	August	September	October	November	December
28,100	12,300	20,400	20,600	25,500	51,638	99,110

1944					
January	February	March	April	May	June
112,333	135,728	136,575	124,680	95,806	40,524

TOTAL 989,805

Harvesting Citrus:

1943		1944					
November	December	January	February	March	April	May	June
5,320	14,580	17,276	14,487	22,591	17,326	16,816	16,088

TOTAL 114,474

GRAND TOTAL 1,104,279

SOURCE OF LABORERS

	Man-days
Bahamians	486,300
Jamaicans	188,000
Domestic Negroes	292,700
White Workers	82,700
Prisoners of War (German)	29,600

Victory Farm Volunteers: The decrease in number of men and women available for farm work in Florida during 1943-44 made additional demands on boys and girls 14 to 18 years of age, to assist in the production and harvesting of food and other essential war crops. School officials gave splendid cooperation

in making adjustments in schedules for opening and closing schools in counties where there was an acute labor shortage. Recruitment and placement of school boys and girls were centered largely in the local schools, directly in charge of one or more teachers who looked after assignments as well as transportation to and from farms.

During the summer of 1944, 150 non-farm youth were recruited and sent to Connecticut for the production and harvesting of shade tobacco. One group of 56 boys, brought to Florida from southwestern Virginia for an eight-week period, assisted in citrus harvest during April and May, 1944. These boys, 16 to 18 years of age, were accompanied by four supervisors and all were housed in a farm workers' camp in the citrus area.

Health and safety of the youth doing farm work were emphasized at all times. More than 1,400 non-farm youth were made available for the production and harvesting of food and other essential crops through the Emergency Farm Labor Program during the period from June, 1943, through June, 1944.

Respectfully submitted,

A. P. SPENCER, *Director*

REPORT OF THE DEAN OF THE COLLEGE OF BUSINESS ADMINISTRATION

To the President of the University:

SIR: The College of Business Administration, during the biennium ending June 30, 1944, has experienced two years of war which have greatly affected its faculty, its student body, and its other activities. The enrollment of civilian students directly in the College, as well as in the courses offered by the College, has greatly decreased. Whereas the number of students in 1941-42 was 231 and the number of graduates 112, in 1943-44 the number of the former dropped to fewer than 50 and the number of the latter to 31. Registrations in the second semester of 1943-44 reached an all-time low, but there is considerable evidence that, with a return of discharged veterans and prospects of an influx of rehabilitation students, registrations will increase appreciably with the opening of the University in the fall of 1944.

The College of Business Administration at the beginning of the biennium had twenty-one full-time faculty members. As the biennium progressed, the war made inroads upon these faculty members. By the end of the biennium, two had resigned to go into the private practice of accounting and leaves of absence had been extended to two to accept commissions in the Navy, to three to accept commissions in the Army, and to five to enter government service. Of those entering government service, two became specialists in the Department of State at Washington; one, an economist with the Regional War Labor Board in Atlanta; one, an economist with the Office of Price Administration in Jacksonville; and one, a research analyst with the Office of State Auditor. Since enrollments had greatly decreased, none of these faculty members was replaced, thereby effecting great savings in the operating budget of the College of Business Administration.

Two other staff members have served part-time in government positions. The director of the Bureau of Economic and Business Research was released half-

time from his University duties during the past year to act as Executive Secretary and Research Director of the Governor's Committee on Governmental Research. The Dean of the College was appointed as part-time public member of the Fourth Regional War Labor Board in Atlanta and has served on this board for a year and a half.

Two faculty members during the biennium completed their work for the degree of Doctor of Philosophy. Of the faculty of this College at present, counting those on leave, twelve have doctor's degrees, six have master's degrees, and one has a bachelor's degree. In addition, one has received the LL.B. degree; one, the degree of LL.D.; and three, the CPA, which in accounting is even more necessary than a Ph.D. The faculty has strengthened its position, and ranks high not only as compared with other faculties in the University but also as compared with the faculties in economics and business administration in other institutions in the South and in the nation.

The College of Business Administration has not engaged in any specialized war program of its own. Its courses and offerings were not of such character as to fit into the specific demands created by war. But in the basic war-training program in which the University engaged there were included courses in geography, history, and mathematics. One faculty member, assisted by four others, served as chairman of the first course; three faculty members helped to teach the second course; and two helped to teach the third.

Other than certain curricular adjustments and changes in courses which were necessary to meet the needs of students arising out of war, the College of Business Administration has made no recent revisions either in courses or in its curricular offerings. During the past year, however, committees have been at work on postwar curricular readjustments. These committees are studying every offering as it has been affected by war and as it may be affected by postwar conditions. Both the curriculum in Business Administration and the curriculum in Public Administration are undergoing the closest scrutiny. Some far-reaching revisions may result from the studies that are in progress. For example, the College of Business Administration may decide both to offer a fifth year leading to a professional master's degree and to recommend to the Graduate School that it be permitted to offer the degree of Doctor of Philosophy in the field of economics.

The Bureau of Economic and Business Research which is a part of this College has continued to operate effectively. Its chief activity has had to do with the publication of *Economic Leaflets* which started in December, 1941. This publication carries articles which are prepared by University faculty members; which deal with government, taxation, industry, commerce and finance; and which are of direct interest not only to business men but also to individual citizens and those concerned with the administrative problems of state and local government. The *Leaflets* have commanded the attention of a wide variety of readers, have been increasingly made the subject of editorial comment, and have achieved high distinction among the publications which are issued by the University.

The College of Business Administration after the war will be confronted with greatly increased demands for its curricular offerings and its services. To begin with, it is believed that the number of students will greatly increase—in the University in general and in this College in particular. Plans are already underway to take care of these students—in new courses, in revised curriculums,

and in other ways. Before the war, it was a problem to provide faculty members and classrooms to take care of the ever-increasing number of students who came to the University for business and public administration. Every year more and more came. After the war the pressure will probably grow greater. It is predicted that it will be necessary to provide *annually* for the registration of at least 300 students and for the graduation of at least 175. This growth will not, of course, come next year or all at once, but it is likely to come before the next biennium is over, particularly if the war ends both in Europe and Asia before the close of 1945.

To be ready to meet these prospective demands, four things will be necessary: first, increased salaries for those faculty members who are now on leaves of absence but who will return after the war—increased salaries commensurate with, if not in excess of, the increased salaries received by those who remained at their present posts; second, increased classroom space and office facilities; third, replacement of the two men who resigned during the biennium to enter private business; and, fourth, employment of two or three new staff members.

In 1941, an appropriation was made by the Legislature to construct the first unit of a new building for the College of Business Administration. The appropriation was permissive and the funds provided therefor never became available. This appropriation should be revived and every effort should be made during the next biennium to set in motion plans looking toward the construction of this building. New quarters for this College would provide more adequate quarters for other colleges and divisions of the University.

Finally, the Bureau of Economic and Business Research should be expanded into an institute of economic and government research. The State of Florida is increasingly making demands upon the University in this respect. It has available few of the research or other facilities that are possessed by a number of other states. It has no *continuing* agency for the conduct of research either in the field of economics or in the field of state, county, or city government. While the Governor's Committee on Governmental Research, which was appointed last spring to formulate plans for the Legislature of 1945, is functioning effectively; while the College of Business Administration has had its Bureau of Economic and Business Research with its very limited facilities; while some individual professors in that College as well as in other parts of the University have carried on a few studies in taxation, economics, and government; and while the Florida Economic Advancement Council has had some funds for research purposes, there have been no permanent organizations in Florida with definite appropriations charged with the responsibility of conducting a *continuous* program of research in the field of economics and public administration.

The institute of economic and government research would remove this deficiency and would engage in four types of work: first, research concerning problems of state and local government, of finance, and of manufacturing and distributive industries; second, preparation and publication of reports and bulletins to be used by business men and state and local officials; third, preparation and publication of manuals and administrative handbooks needed by these officials in the operation of their offices; and fourth, cooperation with the General Extension Division in the holding of conferences or short courses, either separately or in connection with the offices of State and local government and the annual meetings of state-wide associations of county and city officials, such as the Sheriffs' Association, the Association of County Commissioners, and the City

Managers' Association. These officials in these short courses or conferences, would be made acquainted with the results achieved by the institute, with what has been done in other states, and with the difficulties involved in introducing into Florida suitable adaptations of practices in other states. Research bulletins and manuals, either distributed at the conferences or following upon the heels of such conferences, would be supplied to the officials. Coupled with these activities, research on particular problems would be prosecuted and expert counsel and advice would be made available to government agencies on matters requiring immediate attention.

The proposed institute would require an annual appropriation of $20,000. This is a small amount when compared with the budgets of many other government agencies. Of this amount $16,500 would be used to employ research staff members and assistants and $3,500 to take care of operating expenses and publication of manuals and research bulletins. The institute would be administered by the College of Business Administration and would take over the activities of the present Bureau of Economic and Business Research, which have necessarily been limited because the Bureau has been operated on a part-time basis by only a few staff members.

Respectfully submitted,

WALTER J. MATHERLY, *Dean*

REPORT OF THE DEAN OF THE COLLEGE OF ENGINEERING

To the President of the University:

SIR: I have the honor to submit to you the following report of the College of Engineering for the biennium ending June 30, 1944.

All the activities of the College during the past biennium have been conducted wholly for the war effort. In fact, this biennium has been the most active period that the College of Engineering has ever experienced. Several years before the actual outbreak of the war, industry's demand for engineers caused a large increase in enrollment. The Selective Service Act did little to change this until the past year. Furthermore, our curriculum was accelerated in order to make it possible for our students to qualify more quickly than usual for degrees, thereby allowing them to render service, either as commissioned officers in the armed forces, or as civilian engineers in war industries. This acceleration of our program produced a severe strain on both faculty and students.

Particular emphasis has been placed on the problem of adjusting our curricula to meet war needs. While no basic material has been omitted from our program, material having particular war significance has been stressed. No new curricula have been added, but emphasis has been placed in the Civil Engineering Department on the field of Sanitary Engineering, in Electrical Engineering on Electronics, and in Mechanical Engineering on Aeronautics. At the present time, six foreign students are taking graduate work in the field of Sanitary Engineering.

IMPORTANT PROBLEMS AND PROJECTS

The College was also chosen by the U. S. Office of Education to operate the training of workers for industry at the college level for the State. This program

was carried out first under the Engineering Defense Training Program and afterwards under the Engineering, Science, and Management War Training Program. At the outset, the Dean of the College directed this program, but after he was chosen as Regional Advisor of the District and appointed Regional Representative of the War Manpower Commission on this work, the directorship of the program was placed in the hands of Professor N. C. Ebaugh, who has ably handled the program and adjusted it to meet changing industrial needs.

During the biennium, the Engineering, Science, and Management War Training Program and its predecessors have given war training to 9,000 Florida citizens. Ninety-nine courses in over fifty different subjects have been conducted for essential war industries in the following cities throughout Florida during the past year: Pensacola, Panama City, Tallahassee, Gainesville, Jacksonville, Orlando, St. Petersburg, Tampa, Mulberry, Bartow, Bradenton, West Palm Beach, and Miami.

The Government called upon the College to work on special war research projects and this placed another heavy load upon the faculty. Later came the Army Specialized Training Program in which, with the exception of two courses in mathematics, a course in physics, and a few courses in chemistry, the entire advanced phase consisted of engineering courses. While other colleges on the campus gave some assistance by providing faculty members for this program, the specialized professional character of the College of Engineering and the scarcity of qualified teachers in the program resulted in even greater overloads being carried by an already overworked faculty.

Special qualifications, particularly in electronics, have caused the Army and Navy to send selected groups of military personnel for special training in particular fields, in at least one of which this is the only school in the United States prepared to give the type of training desired.

During the past biennium, the Department of Chemical Engineering was accredited by the Engineers' Council for Professional Development and the American Institution of Chemical Engineers. This means that all of the departments of the College of Engineering are accredited—a distinction enjoyed by comparatively few institutions.

The faculty has been very loyal and has accepted long hours and difficult assignments in the knowledge that it was making a worth-while contribution to the war effort. Much work has to be done on a twenty-four hour basis, and during this war period it is seldom that someone cannot be found at work throughout the entire day.

LABORATORIES

Much new equipment has been secured, partly because of special courses which were requested by the Army Specialized Training Program, but mainly because of special research work. This equipment has been paid for almost entirely by the Government, much of it through the Civil Aeronautics Authority funds. Equipment secured in electronics makes our facilities in this important field outstanding among college laboratories.

The Sanitary Engineering Laboratory has also been materially improved and should be valuable for future courses in this field.

The Chemical Engineering Department has likewise secured a new tensile testing machine, equipment for crushing and grinding, heat transfer, filtering,

etc. Much equipment was constructed in our own shops. The expansion of our facilities for laboratory instruction in Chemical Engineering was a major factor in securing recognition for this Department by national agencies.

The equipment in the shops has been augmented so that it is in better shape than it has ever been. Much of this equipment has been loaned us by the U. S. Army.

Welding and heat treating laboratory equipment was greatly expanded to train the large numbers of Army personnel of the College, assigned under the Army Specialized Training Program. Many basic instruments for instruction and research were added in the internal combustion engines and aeronautical laboratories in order to keep this equipment abreast of recent developments.

The College has been able to make a small addition to its laboratory space, using funds received from the Lime Rock Association and from the Civil Aeronautics Authority. More space will be needed in the postwar period, particularly if the College, through the Engineering and Industrial Experiment Station, is to take its part in postwar developments for the industries of our State. It would be a real help if buildings constructed for the College, and now being used by other departments, could be returned for our use.

CURRICULA

Studies are now being made to adjust the curricula to meet postwar needs adequately and to take care of returning veterans. Special problems will be presented, particularly with reference to returning Army Specialized Training Students who may wish to secure engineering degrees. The importance of balancing technological instruction with courses in other fields is being given careful thought.

The Florida Industries Cooperative Plan, which has been a valuable contribution to both industry and to the students, is practically dormant at this time. It is to be expected that in the near future this program will be reopened. It should prove of greater interest and value than ever before.

STAFF

Two members of our staff are now on leave of absence as officers of the U. S. Navy. As the teaching load has decreased during the past year, many members of the faculty have been transferred from teaching duties to research work, much of which is being done for the armed forces.

Dr. Palmer H. Craig has been appointed Head of the Electrical Engineering Department and, under his able guidance, the Department is doing outstanding work in the war effort.

A shortage of instructors in the Civil Engineering Department is particularly acute at the present time and, while every effort is being made to remedy this situation, probably very little can be done until industrial and war needs make qualified persons available.

Members of the faculty have served in many important State and national activities. Members of the staff have held the following positions: Secretary of the State Board of Engineering Examiners; Secretary and Director of the Florida Engineering Society; Secretary of the American Institute of Electrical Engineers; Director of Engineering, Science, and Management War Training activities in the State; Regional Representative for Engineering, Science, and Management War Training to the War Manpower Commission; Regional Advisor

for the Engineering, Science, and Management War Training; Educational Coordinator for the Fourth Service Command; Director of the Society for the Promotion of Engineering Education; Vice President of the Southern Section of the Society for the Promotion of Engineering Education; Chairman of the Chemical Engineering Section of the Society for the Promotion of Engineering Education; member of the Executive Committee of the Mechanical Section of the Society for the Promotion of Engineering Education; and member of the Region IV Committee for the Engineers' Council for Professional Development. During the biennium, several members of the staff have contributed technical articles to engineering publications of national interest.

Industry has also called upon staff members to assist it in many war problems and, because of this, the war effort has been materially aided by this College.

RECOMMENDATIONS

With the cessation of hostilities, many of the returning members of the armed forces will seek technological training and it will become the responsibility of our State to take care of them. Large numbers of the Army Specialized Training Program students have already indicated their desire to return to the University of Florida to secure degrees. It is to be expected, therefore, that within a few years, the enrollment in the College will be greater than ever before. We may be called upon to increase not only our physical plant, but our staff as well.

In certain engineering fields, the University of Florida has secured some eminence, not only because of its staff, but because of its equipment. It is recommended that, particularly in these fields, efforts be made, by replacing obsolete equipment and securing newly developed equipment, to maintain our present standing.

It should be pointed out that because of the many technological changes that have been brought about during the war, much new equipment must be secured in the postwar period if we are to keep our laboratories up-to-date. While much equipment may be secured from the Surplus War Commodities Corporation, it must still be purchased. Unless funds are made available for this purpose, we shall have to make much larger expenditures at a later date for probably much less equipment.

Added space will be required to meet the demands of the future. Washroom facilities are particularly poor and should be improved.

Loads in the College of Engineering have always been too heavy and a sufficient staff should be provided to reduce them.

Respectfully submitted,

JOSEPH WEIL, *Dean*

REPORT OF THE DIRECTOR OF THE ENGINEERING AND INDUSTRIAL EXPERIMENT STATION

To the President of the University:

SIR: I have the honor to submit to you the following report of the Engineering and Industrial Experiment Station for the period ending July 1, 1944.

The function of the Engineering and Industrial Experiment Station, as

specified in the law passed by the 1941 Legislature, "shall be to organize and promote the prosecution of research projects of engineering and related sciences, with special reference to such of these problems as are important to the development of industries in Florida." In November, 1943, Governor Holland authorized and released funds for proceeding actively with research work of particular value to the industries of the State.

The policy of the Station may be outlined as follows:

1. To work closely with existing industries of the State in order to assist in expanding and developing projects that have already been started.
2. To encourage industry to submit problems which confront it and which the Station may help solve in the laboratory.
3. To develop new products which can be made in Florida and which would attract new industries to the State.
4. To find new industrial uses for the natural resources and agricultural products of our State.
5. To assist State agencies by making available special facilities which they do not have.
6. To assist in the solution of various engineering problems which affect the welfare of the State.
7. To correlate the Station activities with those of other agencies having for their interest the development of Florida's industries.

Much of the work of the Station during the past biennium has been conducted for the Federal Government. This has been necessary in the war effort and only such work carried the priorities required to secure materials and to maintain a staff. Among the projects which have been carried on are the following:

No.	Title
4301	A Study of the Properties and Uses for Lime Rock Concrete. Engineering and Industrial Experiment Station Bulletin No. 7 covering one phase of this subject is now available.
4302	Road Stabilization with Lime Rock. Investigation of the incorporation of Lime Rock with sand bases to make more stable road bases.
4303	Acceleration of Concrete and Mortar Setting with Finely Ground Lime Rock. A paper covering the first phase of this work will be published shortly.
4401	Development of a Spray Gun for the Chemical Stimulation of Pine Trees to Improve the Yield of Naval Stores. Field tests are now being conducted with five models built in our shops.
4403	Development of High Grade Ceramic Ware. The purpose of this project is to demonstrate the utility and practicality of establishing a ceramic industry in the State.
4404	Recovery of Tannin from Scrub Oak and Other Sources. Field tests are now being conducted to determine the engineering and economic factors involved.
4405	Natural Florida Sands to Be Used in Sewage Treatment Processes. Collection and classification of the sands are now in progress. Laboratory tests will begin shortly.
4407	Test Road in Cooperation with the State Road Department for Lime Rock Use. Preliminary work has been done in preparation for the laying of several thousand feet of test road on the Gainesville-High Springs road.
4409	Utilization of Wood and Wood Wastes. This project is being carried on in connection with No. 4404, which contemplates the use of the bark of the tree only.

4410 Increase the pH of Sulfite Liquors. It has been found that the waste liquors in Florida do not respond to the same treatment as those of the North. Before anything of value can be removed from these wastes, the acidity must be controlled.

4411 Protein Feed from Waste Sulfite Liquors. A strain of yeast has been reported in England that will produce a high protein feed. This project will attempt to determine whether this strain of yeast can be adapted to Florida conditions to produce a commercial feed from these waste liquors.

4413 Pulp for Paper from Fresh Stumps. Field tests are being conducted to determine the feasibility of recovering usable pulping wood from cut-over land. This project is sponsored by the Office of Production Research Development.

4414 Activation of Florida Minerals to Produce Catalysts for Petroleum Cracking, Oil Bleaching, Water Treatment, and Other Purposes.

2453 War Research. Under this heading several secret projects have been operating for various Federal agencies. The invitation to carry on this work is a recognition of the high standing of the College of Engineering. It is expected that when the results of this work can be revealed, they will demonstrate that a real contribution was made to the war effort.

At the present time, the staff consists of thirty-three full-time workers, together with twelve part-time workers. No research assistants have been employed due to Selective Service regulations, but as soon as conditions permit, this situation will be remedied.

One of the important factors in establishing the Engineering and Industrial Experiment Station at the University was to make more effective use of the facilities of the College of Engineering Laboratories. Equipment is used by the research workers, regardless of which department in the College has title to it. As a result, the Station starts with a fine back log of equipment. However, most research projects will, of necessity, require some special equipment.

PLANS FOR THE NEXT BIENNIUM

In order to fulfill its function, the Station should become the Research Laboratory for industries in the State. In order to accomplish that purpose, some projects will be carried on covering specific problems of particular industries. Such projects will be financed at least in part by contract with the sponsoring industry.

When conditions permit, it is planned to have one or two research assistants assigned to each staff member. This will fulfill a twofold purpose: (a) increase the amount of research that can be done; and (b) provide a source of trained engineering personnel at the graduate level for the industries of the State. At this point, it is interesting to note that two of our staff members are Florida graduates who, after having had experience elsewhere, are now able to turn their talents to the solving of Florida problems.

During the next biennium, the Station hopes to make progress towards:

(1) Solving some of Florida's industrial and engineering problems.
(2) Becoming the research laboratory for Florida's industries.
(3) Training young research men to go out and help industry solve its own problems.

FUTURE PLANS

In order that the Station shall fulfill its function of studying "Engineering Problems Which Affect the Welfare of the State," some more generalized problems are planned.

1. Because of its most southerly location in the United States, Florida receives a larger percentage of solar energy than any other state. Large amounts of money are being expended in other places that are less favorable for this type of study. It is reported that more than $100,000 per year is being spent by the Massachusetts Institute of Technology for the development of solar energy equipment. Studies of that type in Florida are important when it is realized that by proper utilization of solar energy, not only can power and heating devices be developed, but also refrigeration. Work along this line was started several years ago with the publication of Engineering Experiment Station Bulletin No. 5, entitled *Climatic Data for the Design of Air Conditioning Systems in Florida*, and will be continued as soon as manpower again becomes available.

2. In the prewar period, work was carried on in connection with the Navy on hurricane location, (Bulletins Nos. 3 and 6). The new advances in the science of electronics should give a very important stimulus to this work in the postwar period.

3. The University wind tunnel will be used to study the effect of wind velocity on structures. More information on this subject may result in safer homes and lower building costs for Florida.

4. As more industries come into Florida, a better knowledge of water supply and of methods of treating the water for industrial purposes becomes important. Low cost pumping methods should be developed because of the flat terrain.

5. Studies in the field of ultra-high frequency instruments will help to make aviation safer and thus stimulate the location of landing fields in the State.

6. One of the chief difficulties that Florida has experienced, as far as industrial development is concerned, is lack of cheap fuel. Much fundamental research has been carried on in the development of liquid fuels from plant sources. While it appears, at the present time, that this is a higher cost fuel than can be obtained by importing oil or coal, research should be carried along to determine whether or not the cost can be reduced to the point where such fuel manufacture can be economically sound. The first project that should be undertaken in this connection should be designed to develop a fuel for use by farmers and individuals from waste farm materials. This field appears to promise reasonable results, and information in this study might eventually lead to a low cost fuel for other purposes.

7. Because of the relatively high temperatures in Florida throughout the year and the proximity to salt water, corrosion problems are serious. All industries and also individual home construction are affected by the tendency of ordinary materials to corrode. It is planned to initiate a project which would study the rate of corrosion of the usual construction materials and to develop, if possible, methods of minimizing this corrosion.

8. One of Florida's great natural resources is its beaches. Engineering Experiment Station Bulletin No. 4 entitled, *Study of Beach Conditions*, is a start in studying conservation of this great resource. Further work is important to every resident of the State.

9. As a result of work done in "Aerial Mapping" for the armed forces, postwar work in this field can be of great value to the State.

RECOMMENDATIONS

It is regretted that more information cannot be given pertaining to the war activities of the Station, but it may be said that during the past two years,

ninety per cent of the efforts of staff members have been on important war contracts of a secret nature. These same workers, when peace is declared, should be diverted from war work to help solve problems involving Florida's industries. It is recommended that provision be made for keeping these men on our staff.

It is also recommended that every effort be made to secure some of the valuable equipment which will be disposed of through the Surplus War Commodities Corporation and that funds be made available for this purpose.

It is further recommended that funds be made available for continuing the work now being done for postwar cooperation on problems for Florida's industries, and on the development of methods for the utilization of the State's natural resources.

Respectfully submitted,

JOSEPH WEIL, *Director*

REPORT OF THE DEAN OF THE COLLEGE OF LAW

To the President of the University:

SIR: The work of the law faculty has not decreased during the war. Extracurricular activities, as detailed in former reports, have not slackened, and other necessary duties have been assumed. While reduced attendance has enabled us to dispense with some law courses, three professors have taught history and one, mathematics. One has taught Business Law and another Business Units for the College of Business Administration. Three members of the faculty have been members of the State Bar Association Committee on Refresher Courses. All professors being fully employed, it has not been possible to assign any to the preparation of material for refresher courses, or other new courses, although such assignment would be highly desirable. Beginning with the summer of 1942, the faculty has taught two terms of summer school, and the strain of duties throughout the year is inescapable.

In September, 1943, the Assistant Law Librarian, who was also a part-time instructor in law, resigned to accept a position in Washington. The embarrassment of the College was resolved by the transference of the Administrative Assistant and Librarian to full charge of the Law Library and part-time teaching, where she has served with distinction. Professor William A. McRae, Jr., on leave, is at this writing a Lieutenant Colonel with General H. H. Arnold.

ADMISSION AND STUDENTS

Effective February 1, 1943, the requirements for admission to law were reduced to two years of academic college work meeting the requirements of the Association of American Law Schools. The College delayed recommending this step, but so great was the war drain on potential students that for the duration it felt obliged to join the ranks of the great majority of law schools. After receiving the law degree a student may take the additional year of academic work in the combined course and receive an academic degree.

The law faculty recommended that the Florida State College for Women offer a combined academic-law course, the law to be given by this College. This policy has been put into effect, and now women as well as men may take

an academic and a law degree in six years (or less calendar time under the accelerated program). In view of present unprecedented opportunities in law, women now constitute about 22 per cent of the total law enrollment in the country; they constitute about 25 per cent of our enrollment.

The morale of law students in these trying days has been surprisingly high. When it appeared that summer law terms in 1944 would not be feasible at former fees, most of them signed a petition agreeing to attend and favoring a doubling of the fees. So effectively did they promote attendance that twenty-two students attended the first term.

In 1941-42 (exclusive of summer) the College enrolled 100 students; in 1942-43, 57 students, including 3 women; in 1943-44, 26 students, including 7 women. In the summer of 1943, law attendance for the first term was 14; for the second term, 14. In the summer of 1944, law enrollment during the first term was 22; during the second term, 18. Men discharged for physical disabilities from the armed forces are beginning to enter, and it is believed that our enrollment will start to increase.

DEGREES AND HONORS

In 1942-43 twenty law degrees were given, one with honors and four with high honors. In 1943-44 seven law degrees were given. In 1942-43 the first-year student making the highest average was Jacqueline May; in 1943-44, Louis Safer. In 1942-43 the senior making the highest average during the entire course, the work being done entirely in this College, was Ila R. Pridgen. Her average (3.9+) also was the highest in the University for the class graduating May, 1943. Not more than one or two others have made averages approximating this in the history of the College. In 1943-44 the senior making the highest average, as aforesaid, was Robert Bruce Crawford, Jr.

THE WAR AND THE LAW SCHOOLS

In 1936 there were 40,529 law students in the United States. In the fall of 1943 there were 4,803, of whom 2,338 were in thirty-three evening schools. Half of the morning schools had enrollments smaller than ours. Our rank in the South is shown by the fact that we had a larger law enrollment than the state universities of Alabama, Arkansas, Georgia, Kentucky, Mississippi, Missouri, North Carolina, South Carolina, and Tennessee. Eight law schools approved by the American Bar Association had closed, including those of the Universities of Nebraska and Wyoming. Other state university schools were running with very small enrollments. For example, South Dakota had 2 students; North Dakota and Oregon, 7; Idaho, 8; Mississippi, 11; North Carolina, 12; Kansas, 13; and Montana and West Virginia, 14. In addition to keeping their faculties together, schools like the above show their faith in the impersonal, orderly administration of justice and in the training of lawyers by which this is possible.

POSTWAR PROSPECTS

For some time the supply of young lawyers has been virtually eliminated. National policy, unlike that in the First World War, has made no effort for recruitment. The profession is shrinking while we are fighting for law, justice, and liberty. The year following the First World War (1919-20) our law enrollment was 98, and successive enrollments were 115, 154, and 227. After the

present war, we expect these figures to be considerably increased for various reasons: (1) Our enrollment when the war began (1941) was larger than in 1917. (2) The present war will last longer than the last. (3) More of our undergraduates are in the service. (4) The demand for lawyers, due to depletion of supply, will be larger. (5) More liberal rehabilitation of veterans. (6) Requirements for admission to the Florida bar now embrace law school graduation.

LAWYER RECONDITIONING

At the end of the war an effort will be made throughout the country to fit and adjust lawyer veterans for the practice. To this end refresher courses will be given by state bar associations, unless supplanted by courses in approved educational institutions under the Servicemen's Readjustment Act of 1944. Two processes, however, often will be necessary: (1) reconditioning the mind; and (2) bringing it down to date professionally. The former can be best accomplished by residence in law schools. The College hopes to have a part in the mental reconditioning of lawyer veterans.

OTHER SHORT COURSES DISTINGUISHED

War instruction has shown the possibilities of short intensive training for specific objectives. Whether this be mere training or education, in some fields it will have vocational postwar value. But in the legal field it is different. A knowledge of law has little or no vocational value unless one is admitted to the bar. In Florida now, as in most states, one cannot be admitted to the bar unless he is a graduate of an approved law school. One cannot be such a graduate unless at least he has passed two years of academic college work, has studied law in residence for ninety weeks, and has completed ten hundred and eighty hours of classroom instruction. It follows that while special courses profitably may be offered those already admitted to the bar, they will have no vocational value for those not admitted.

RESERVE PERSONNEL

It is reasonable to suppose that the war will end during the next biennium, certainly the war with Germany. Our attendance suddenly may be greatly increased, and we shall be confronted with problems more difficult and onerous than those arising after the First World War. The writer vividly recalls the hectic days of 1926-29, when law attendance in 1927 spiraled to 275, and the teaching and grading of students became most difficult and uncertain. A similar crisis may confront us soon, and provision for reserve personnel is imperative, the appropriation to be used only if necessary.

We should be able to employ, if necessary, a seventh law professor for regular instruction and a full-time assistant law librarian, releasing the Librarian for other duties where most needed. The Servicemen's Readjustment Act of 1944, which allows student veterans to complete their courses, appears also to allow lawyer veterans to take a refresher course at Government expense. If so, there will be a heavy demand on us for this service, necessitating courses in recent law developments in addition to regular undergraduate work. Hence, an eighth professor in reserve is required. A reserve fund also should be set up for clerical assistance. Whatever the difficulty, the legislature should make an appropriation for reserve personnel for this College and for the University to avert the breaking down of the teaching process.

LAW LIBRARY

The Law Library has enjoyed its most successful biennium. In addition to our library appropriation, we have received funds from the General Education Board and from other sources. Under present management, our acquisitions have become more judicious, and library arrangement, order, and auditing have improved.

At the end of the fiscal year, 1944, the Library had 17,879 volumes, of which 3,116 were acquired during the preceding two years. The Library is now valued at approximately $85,000. We now have the codes of forty-four states practically up to date. We have 43 sets of law reviews and expect to get more. Judge Curtis Waller has been sending us briefs of cases in the Fifth Circuit Court of Appeals, and they have been catalogued, as well as student articles in Legal Research. A substantial part of our appropriation goes for continuations, but the assistance received has enabled us to add the following items to our foreign materials: *Law Times Reports; Law Reports* (English); *Session Cases* (Scottish); Halsbury's *Complete Statutes of England; Canadian Abridgment;* and several English, Canadian, and Australian legal periodicals.

Respectfully submitted,

HARRY R. TRUSLER, *Dean*

REPORT OF THE ACTING DEAN OF THE COLLEGE OF EDUCATION

To the President of the University:

SIR: I submit herewith the following report on the activities of the College of Education for the biennium ending June 30, 1944, with recommedations for the coming biennium.

CURRICULAR REVISION

A program leading to the degree of Master of Education was begun in the summer of 1944. This program entailed the adaptation of materials to the professional preparation of teachers in contrast to former offerings for a research degree.

IMPORTANT PROBLEMS AND PROJECTS

The teacher shortage and the need for training emergency teachers constituted the chief problems of the biennium. Postwar planning, the revision of teacher education programs for in-service and pre-service teachers, the production of new basic materials for use in schools, the need for classifying teachers as a basis for salary schedules, the improvement of communities through the schools, and the selection of students have been other major problems. The College has directed its facilities toward the solution of these problems while continuing to attack other educational problems that are constant.

The re-establishment by the State Board of Education, under the laws of Florida, of ninety-five scholarships is a significant contribution to the work of selecting superior students to enter the teaching profession.

Health and Physical Education.—The staff in health and physical education, in cooperation with the public school teachers, developed a physical fitness

program for the public schools of Florida. A Physical Fitness Institute was held in this connection in March, 1943, at the Yonge building.

A text written by staff members, *Teaching Physical Education in the Elementary School,* mentioned in my last biennial report, was adopted as the State course of study in elementary physical education.

The Bureau of Educational Research.—The Bureau completed several projects and issued reports in the following series of bulletins:

1. *Institutions Offering Post-Graduate Study in Off-Campus Centers*
2. *Commodore Matthew Calbraith Perry and the Opening of Japan*
3. *Materials on Education, War and Post-War Conditions*
4. *A Program of Action to Remedy the Teacher Shortage in Florida*
5. *The P. K. Yonge Laboratory School. A Bibliography on the History, Program, and Work of the School, 1934-1944.*

The Bureau sponsored two state-wide conferences, one dealing with the impact of war upon civilian life and education, and the other with the teacher shortage. Reports of the conferences were published in bulletin form.

The P. K. Yonge Laboratory School.—Increased interest in education, particularly in the summer, among younger students maintained attendance figures and added to enrollment. Older students doubled their efforts to complete their educational programs. Superior students completed accelerated programs. Graduates and former students of the School earned enviable records: over one hundred and fifty are in the armed forces and during the past year the ninth student was elected to membership in Phi Beta Kappa since the School opened in September, 1934. Emphasis during this wartime period has been placed on science, mathematics, and physical training, but not to the neglect of a well-balanced, enriched, instructional program for all grades.

The Florida Curriculum Laboratory.—The Laboratory has continued its services to students in the College, to teachers in service in the State, and to professional groups working on specific problems. Requests have come from all sections of the State for the use of materials housed in the Laboratory. Publications now on the shelves exceed 16,000, of which approximately 9,000 are books for pupil and professional use.

The Inter-American Education Demonstration Center.—The Center has supervised the use of Inter-American content materials in schools requesting the service. Planning for the peace through evaluation of present curriculum materials for the schools of Florida and the creation of new materials are major activities.

The University of Florida Project in Applied Economics.—The work of the Project for the period may be summarized as follows:

Prepared and published forty-six publications related to housing or teacher education and housing.

Cooperated with three experimental schools in housing.

Assisted in the development of demonstration centers for the teaching of food, clothing, and housing at McIntosh, Auburndale, and Lake Butler.

Conferred with representatives of eighteen out-of-state colleges and universities and interpreted the Project to them.

Assisted in in-service education programs of the State Department of Education and in selected counties through participation in demonstrations, planning conferences, and workshops.

Cooperated with the University of Kentucky and the University of Vermont in diffusing ideas sponsored by similar projects in applied economics.

Answered requests for publications of the Project from all over the United States and three foreign countries. In making this service available, several thousand publications have been distributed.

Bulletins and Releases.—The College published as a bulletin, *Living and Learning in the Elementary Grades,* which was issued in February, 1943. This study of the elementary grades of the P. K. Yonge Laboratory School was distributed to Florida public schools gratis, and almost a hundred copies were sold to schools in all parts of the nation in response to their requests.

A number of releases, chiefly designed for teachers, have been distributed in mimeographed form to Florida schols. They cover such subjects as "A Wartime Christmas Program," "The English Program in Time of War," "Home Nursing in the School Program," "Egypt of Long Ago," "Milk Makes a Difference," "Suggestions for a Wartime High School Mathematics Program," "Elementary Weaving, Basketry, and Paper Jewelry," "For These We Fight," "Developing Good Speech in the Young Child," "Inflation Control: A Community Responsibility." The District Office of Price Administration requested permission to duplicate and distribute 8,000 copies of the last-named release to the schools of Florida.

The Inter-American Education Center released "Summer Reading and the Americas," copies of which were distributed by the U. S. Office of Education to all other Centers under its supervision, and "A Llama Gets a Name," which was widely distributed by the Office of the Coordinator of Inter-American Affairs.

NEW FACILITIES

All libraries of the College received many important additions.

Field Work.—During 1943-44, the College provided a full-time consultant in health and physical education to assist in organizing and conducting the physical education program in Florida public schools. The State Department of Education cooperated by furnishing travel allowance.

In agricultural education two itinerant teacher-trainers have assisted in supervising the agricultural departments in Florida high schools. There were 4,167 students of vocational agriculture enrolled in the State during the school year 1942-43, producing an income in that year of $564,030.81.

The Librarian of the Yonge School worked closely with the public schools in organizing libraries, furnishing lists of books for purchase, and instructing teachers in the use of the libraries in their schools.

The Inter-American Education Center sponsored two all-state projects for Pan-American Day celebrations and a series of radio broadcasts for children and teachers; it also conducted nine lectures to civic organizations and engaged in numerous community projects.

The College and the Laboratory School have done much work with schools in Alachua and adjoining counties. A staff member spent one day each week for a semester in the schools of four counties, assisting with the solution of school and community problems. An effective workshop program was held in Madison County and was followed up by weekly conferences.

FACULTY PERSONNEL

Three members of the College staff resigned during the biennium to accept important civilian positions; two of these posts have been filled. Four members of the College staff are on leave—two are serving in the Navy and two are on special wartime government service. Three members of the Laboratory School staff are on military leave.

Twelve members of the College and Laboratory School staffs taught in the University's war training programs; one served as director of the programs; and two served as chairmen of courses.

Two members of the College faculty received the degree of Doctor of Philosophy during the period under review.

RECOMMENDATIONS

I submit the following recommendations for the coming biennium:

1. That two full-time workers, one in elementary and one in secondary education, be assigned to field service.
2. That the professional degree of Doctor of Education be granted by the College of Education and that, since it is purely a professional degree, the degree of Master of Education be transferred to the College of Education. There are great possibilities for leadership in Florida, and it becomes the duty of the College to train workers for this service.
3. That the College be authorized to offer courses for county superintendents and supervisors in service, the courses to be two weeks in length, to be held at regular intervals throughout the year, and to deal with pertinent problems of office.
4. That the College be empowered to enroll students who have not completed the General College provided they have completed sixty-four semester hours of college work.
5. That the College be permitted to give a limited amount of credit by examination.
6. That the Yonge School be permitted to administer adjustment examinations to mature persons over twenty-one years of age for college entrance, and that students qualifying under these examinations be graduated from the Yonge School.
7. That certain students be allowed to register concurrently in the College of Education and in one other college on the campus, and that upon completion of all requirements for a degree in the College of Education, the student be graduated without completing the additional thirty semester hours now required under the by-laws of the University for the second degree.
8. That at least ten scholarships of a minimum of $500 each be set up for training students for the office of county supervisor.
9. That the consultative service in health and physical education, established as an emergency measure, be continued on a part-time basis under the Field Service division of the College.
10. That the College be allowed to established exchange scholarships with foreign countries for students preparing to become elementary or secondary school teachers.

WAR ACTIVITIES

Emphasis has been placed on the in-service education program, in order to train new teachers called in to meet the teacher shortage in public schools;

on preparation and distribution of materials on pertinent wartime problems; on courses dealing with first aid, home nursing and care of the sick, health education, and physical fitness.

The staff of agricultural education has trained all available students for agricultural teachers and has placed them immediately in high schools. The staff has also supervised forty-four teachers of Food Production War Training classes for out-of-school youth and adults. These classes offered instruction in repair of farm machinery, woodwork, canning, and preserving.

The Graduate Council permitted the Department of Education, under certain conditions, to offer graduate courses in education at Jacksonville, Florida, as an emergency measure.

The Yonge School pupils assisted in war drives; the teachers in the School assisted with rationing.

Respectfully submitted,

G. Ballard Simmons, *Acting Dean*

REPORT OF THE DEAN OF THE SUMMER SESSION

To the President of the University:

Sir: The enrollments in the Summer Sessions of 1943 and 1944 did not reach the high levels of prewar years. This was so expected for most of the men students were in the military service and most of the women students were either in the same service, or had during the summer months gone into employment other than teaching. After the war this will no doubt change and enrollments will again be large. It does not seem, therefore, that the low enrollments of the past biennium constitute a major problem at this time.

Despite the low enrollments, it has been possible to maintain the same high quality of instruction and course offerings as of previous years. Wherever reductions have been necessary, we have merely eliminated some of the sections into which the larger courses were divided and abandoned a few courses that never drew many students even in prosperous years.

In particular it may be said:

1. That the usual two six-week terms, six days a week, have been maintained each summer.

2. That in May of 1943 a special presummer session term of three weeks was held for the benefit of those teachers who, due to teacher shortage in the so-called "emergency," had been called suddenly into teaching. This short term consisted entirely of those courses that are sometimes spoken of as "refresher" courses.

3. That in April and May of 1944 a more ambitious program was offered consisting of a full six-week term. This term was initiated primarily for the benefit of those teachers of the State whose schools close early and who, we thought, might find it convenient to spend the time in additional preparation.

4. That during the usual June to September session a few short courses of three weeks' duration were offered each year for the special benefit of those teachers who could not attend a full six-week term. Most notable among these was a short course by the noted teacher and author, William Heard Kilpatrick, of Columbia University, on The Foundations of Education. Other short courses were: (1) Curriculum Construction; (2) Guidance for Teachers and Administra-

tors; (3) Special Wartime Problems of Administrators; (4) New Problems in Global Geography; (5) A Clinic for Athletic Coaching; and (6) A Special Workshop for Individual School Groups.

5. That a course for teachers of handicapped children was offered the second term of 1944. This course was made possible by a bequest of $425.00 from the Florida Society for Crippled Children. It was taught by Mrs. Agnes Howe of Jacksonville.

6. That each year a few outstanding teachers from other institutions were brought to the University, a policy which makes it unnecessary for our students to go out of the State to receive instruction from such teachers.

Thus it may be seen that the Summer Session has continued its service as well perhaps as could be expected under adverse circumstances.

A New Master's Degree.—During the past year you will recall you appointed a committee to make a study of special offerings for teachers during the Summer Session. After painstaking study this committee recommended a new master's degree for teachers. This recommendation was duly submitted to the Graduate Council and it was agreed to offer the new degree under the title of Master of Education. The committee felt that the requirements for the new degree are much more in accord with the needs of teachers than are those for the old Master of Arts in Education degree—the degree that has been offered now for many years. The old degree stressed research. The new degree will stress competence in teaching and school administration. The new degree, it is felt, is much more a professional degree than was the old degree.

A number of students began their graduate work according to this plan in the summer of 1944 and at least some of them, perhaps all of them, are well pleased thus far. Those of the faculty who have been closest to the operation of the new plan have been high in their praise of its success. Since the residence requirements are such that no one can finish his work for the new degree before the summer of 1946, final judgment must of course be withheld at this time. We feel confident, however, that many teachers and school people will find the new requirements more responsive to their needs than were the old.

The Quarter System.—As soon as war was declared, acute need was felt by the colleges and universities of the nation for making use of all available time and resources. To do this many of these institutions have found it expedient to change their administrative setups, so as to make better use of the time from June to September. Much experimentation has gone on and several plans have been tried. Many that had plans similar to ours have changed to something else, but none that had something different has changed to our plan. The two most popular plans seem to be the three-semester plan and the four-quarter plan. The engineering schools seem to favor the former, the state universities the latter. The trend seems definitely toward the quarter system. The United States Office of Education, Maude Farr reporting, states that over half of the fifty-two land grant institutions are now operating on the quarter system.

During the biennium a committee appointed by you for the purpose has been working on the problem of a better coordination between winter and summer sessions. The committee has, you will recall, submitted to you a recommendation that the University adopt the four-quarter system. The committee recommends that this change go into effect in the fall of 1945. The recommendation of the committee has not yet been acted upon by the University Council, the Senate,

and the Board of Control, and of course we do not know that it will be approved. If it should be approved it will mean that the Summer Session of 1945 will be administered as in the past while that of 1946 will be administered differently. The change to the quarter system, we confidently believe, will be for the best, and it is so recommended in this report.

THE SUMMER SCHOOL OF TRADE AND INDUSTRIAL EDUCATION AT DAYTONA BEACH

The Summer School of Trade and Industrial Education at Daytona Beach reports "two of its most profitable years in 1943 and 1944." As everywhere else its enrollment was cut in half or more, but it has nevertheless been able to render a valuable service, for in every center in Florida where war production training courses were offered large numbers of instructors entered the service. Others were tempted by high salaries back into industry. All these had to be replaced by new teachers. Courses at the School were pointed directly toward the individual needs of the new instructors, with the result, so the Director thinks, that little time or effectiveness was lost through replacement. The whole State program would without doubt have been weakened without this aid to these new teachers. Indeed, the Director of the School thinks that "we accomplished more for the public good during these past two years than we did during the prewar years." This is doubtless correct, and it seems the School has rendered a valuable service during the biennium.

All in all then it may, I think, truthfully be said that despite certain handicaps good work has been done in the Summer Sessions during the biennium.

Respectfully submitted,

J. W. Norman, *Dean*

REPORT OF THE DIRECTOR OF THE SCHOOL OF ARCHITECTURE AND ALLIED ARTS

To the President of the University:

Sir: I submit herewith the biennial report of the School of Architecture and Allied Arts for the period ending June 30, 1944.

In General.—While Architecture is not a military subject, graduates of this School upon becoming officers in the Army and Navy have, nevertheless, been placed in charged of building projects with notable success therein and have served in many fields with distinction. This is evidence of the soundness of the method of teaching which we follow.

We have several foreign students: one from Chili in Painting; and two from Turkey and one from Cuba in Architecture. During the biennium, 162 were enrolled in the Lower Division; 74, in the Upper Division. Fourteen students were graduated.

Curricular Revision.—We have maintained our general scheme of instruction which is called the "project method." During the war we have made no changes in the curriculum except to change some of the subjects of the projects. This method allows considerable flexibility without destroying the general framework. In the postwar period, the project method will also permit special

problems to be arranged to meet the particular requirements of returned veterans, many of whom may desire to take special preparation to fit them for their particular field of endeavor.

New Equipment.—During the biennium we have acquired 434 lantern slides, comprising both colored and standard slides of architecture and painting. Other equipment acquired has included a silk screen painting outfit and a Professional Reproduction Outfit. Two hundred and seventy-six books have been added to our Book Room, ninety-three of which were gifts.

Gifts.—This biennium, Mr. C. Edward Vosbury, architect from New York, now a resident of Clearwater, Florida, presented the School with over 2,000 copies of technical architectural magazines and eighty-eight books. Three books were received from Lloyd Flood, a graduate of our School, and two books from Director Weaver. These gifts will help to build up the rapidly growing Library of the School, which now contains over 2,400 volumes and many complete and partially complete editions of technical periodicals in the fields of architecture. Sixteen etchings and lithographic prints have been received from the Associated American Artists and from the Miniature Print Society, of which our School is a member.

Exhibitions.—It has been our policy to bring to the University a continuous series of exhibitions from various parts of the United States in order to enrich the artistic background of the student body and the general public. These include oil paintings, water colors, etchings, lithographs and colored reproductions of great paintings. During the past year we also presented an excellent exhibition of bronze sculpture. We have at least one exhibition each month.

Faculty Personnel.—During the biennium, changes in the faculty have been frequent, until at present we have four members of the faculty on leave and one resignation. One member is a Major in the Infantry, U. S. Army; one, a Lieutenant in Camouflage; one, a Lieutenant in the Navy; one is in the Art Division of the Navy; and one has resigned to do postwar architectural planning in New York City.

Recommendations.—The Architectural Book Room, as above stated, has over 2,400 volumes and is badly in need of an attendant to take care of these books and magazines, to issue them to students, and to put them in their proper places. This attendant could well be a young person hired at a relatively small salary.

It is also desirable to have one additional small office in Peabody Hall for an instructor.

It has long been desirable to have a large room, such as the original college library room in Peabody Hall, where there could be a permanent exhibition of drawings and paintings, both as a place for study and as a center where the general student body might go for cultural instruction. Such a room would not only serve this School, but would serve the uses of all the students in the General College, and the exhibitions could run parallel to the courses in the Humanities.

Respectfully submitted,

RUDOLPH WEAVER, *Director*

REPORT OF THE DEAN OF THE GENERAL COLLEGE

To the President of the University:

SIR: I beg to submit the following biennial report of the General College for the years 1942-1943 and 1943-1944.

From the very beginning curriculum development and improvement has been one of our most important tasks. Certainly in this period of rapid change it becomes a continuous responsibility. The General College curriculum is a program of studies in which the principle of guidance is dominant during the first two years a student spends at the University. At the beginning of the war period, the immediate needs of students became the dominant ones. A student was permitted to elect any special subject or program that might be of immediate use after he entered the armed forces. However, perhaps because they could see that the Army Specialized Training Program had many points in common with our civilian program, many students continued in the regular work. During every semester of the war period, the civilian enrollment in each of the comprehensive courses has been large enough to warrant several sections.

We have called the work of the General College *General Education,* and so it is, but it is probably better to look at the work of the first two years as basic preparation. From many sources, perhaps even from our University bulletins, a student often gets the impression that he must devote two years to general education before he is permitted to begin his professional work. No such separation exists. A student starts toward his professional objective, if he has one, the first day of college. But he is not badgered to choose; he is allowed to make a choice. It is unfortunate that the opposite attitude is found in certain organizations and communities, since it usually forces a boy to "guess" instead of "deciding" about his life's work. Then there is subsequent change and loss. A liberal education to us is not one that crams a student with certain facts of the arts or philosophy as disciplines, but one that helps him understand himself and the civilization of which he is a part. We follow the dictum that philosophy finds itself when it ceases to bother about the problems of philosophers and concerns itself with the affairs of men.

Certain of our key faculty members are in the armed forces on official leave. These are officers, and according to official announcement, they probably will not be discharged as rapidly as non-commissioned men. We shall have a critical problem, therefore, if these instructors are not returned to us in time to help with the large numbers of returning students. The temporary faculty that we might piece together to substitute would be wholly inadequate to meet the problem. Further, in all probability some of our instructors will not return. One is a Lt. Colonel in the Engineering Corps, another is a Major in artillery, yet both were receiving less than $2500 per year from the University when they entered the service. So our greatest problem just now is only an old one become more acute—finding and keeping instructors who can teach the comprehensive courses. In the past a number of well-qualified men became workers in one of the subject areas and trained themselves in service. However, such men are in demand everywhere. High salaries and promotions are offered by other universities. Thus, building and keeping together a unified staff is a difficult problem in the Lower Division.

Upon its organization, the General College made a definite break with many old procedures and practices of the hide-bound academic groups. Now there is

quite a tendency on the part of certain individuals and some university-wide units to standardize such items as *class attendance, credits, reports, tests, examinations,* etc. Reducing all these things to a common denominator may make for efficiency in getting the "work" (paper-work) done, but it is questionable from an educational point of view. Adjustments may be needed, but it is to be hoped that the several subject area groups now working in the Upper Division may be influential in bringing about the desirable Upper Division changes.

No claims are made that we can foresee the future course education will take in America. As all others, we do not know, but we are organized to go forward. Probably the old idea of a liberal education will be as inadequate as the extreme views we hear today in vocational education in meeting the need of the future. We are attempting a new synthesis.

The past eight years make up our trial period. During this period we have seen many colleges and universities of the country undertake programs of general or basic education. Our procedure is still an experimental one, as all true education is experimental as far as the individual is concerned, but we try to keep the proper emphasis on adjustment and change as a result of experiment or experience. Our experience and success during the trial period will enable us to take future steps with more confidence and with a minimum of loss.

Respectfully submitted,

WINSTON W. LITTLE, *Dean*

REPORT OF THE DEAN OF THE GENERAL EXTENSION DIVISION

To the President of the University:

SIR: I submit herewith my twelfth biennial report covering the period July 1, 1942, to June 30, 1944.

The General Extension Division, seeking to integrate its program into the lives and needs of the people of Florida, has kept its resources fluid to meet constantly changing conditions. For rapid adjustment, techniques have been developed which afford ready shift from one emphasis to another.

The Division, therefore, required no complicated re-tooling to convert to a war program: Materials were satisfactory, tools were ready, skills were proven. It was necessary only to shift patterns. With more materials, more tools, and adequate manpower, we could have done a bigger job.

Conversely, when the time comes for reconversion to a peacetime economy, the Division will be able to make the change with maximum readiness.

A complete record of the activities of the General Extension Division appears in the attached tables, while the current significant projects are discussed in the following paragraphs.

GIVES EXTENSION COURSES TO SERVICE MEN AND WOMEN

Around the world, 2,278 men and women in the armed forces have enrolled for extension courses from the University of Florida.

Service personnel can select from 353 college and high school courses offered by the General Extension Division at reduced cost, since Florida was one of the

first states to subsidize correspondence study for members of the armed forces. Two-thirds of these courses are also offered through the United States Armed Forces Institute under a plan by which the Army or Navy pays half and the student half.

In the early months of the war, the majority of armed forces registrations were in mathematics, physics, engineering, geography, and the modern foreign languages, subjects which were of military value. The trend now indicates that service men and women are thinking about what they are going to do when they get out of uniform.

The registration figure for the armed forces includes enrollments in correspondence study, and in special classes for members of the Military Police and Shore Patrol and for military personnel in charge of water and sewage treatment plants at Florida installations.

COOPERATES WITH THE WAR DEPARTMENT AND THE MILITARY DEPARTMENT OF FLORIDA

Accepting the obligation of the University to help Floridians prepare themselves for the full responsibility of citizenship, the Division cooperated with the War Department for twenty years prior to World War II by enrolling young men in the Citizens Military Training Camps. Thousands took the red, white, and blue courses, and several hundred are now serving as officers and non-coms.

Prior to Pearl Harbor, at the request of the Adjutant General of Florida, the Division registered civilian workers for Selective Service during construction of Camp Blanding. With the cooperation of the ROTC unit of the University, men were registered on the job, and 200,000 vitally important work hours were saved.

Later, to assist with the recruiting program for the current emergency, War Information Committees were set up throughout the State to acquaint young men and their parents with the war aims and opportunities offered by the armed services.

The Adjutant General has expressed appreciation of the Military Department of Florida

> "... for your fine cooperation and help before and throughout the present military emergency. Through your personnel procurement in Florida for Citizen Military Training Camps for the past twenty years, a large pool of potential officers was available at the outbreak of war. Many of our best National Guard Officers came from this reservoir. Your cooperation in the registration of civilian workers at Camp Blanding, and in setting up War Information Committees to assist in the recruiting program was of particular value to our Selective Service System."

ASSISTS THE STATE DEFENSE COUNCIL OF FLORIDA

The Dean of the General Extension Division has continued to serve as Coordinator of Training by appointment of the Governor at the request of the State Defense Council of Florida, and as special adviser to the Office of Civilian Defense.

The Division has continued its program of training for civilian defense leaders and instructors throughout the State. A total of 3,094 persons were instructed in Defense Council Organization and Administration, Chemical Warfare Agents and First Aid, and Control Center Operation. Special attention

was given to the work in the coastal cities because of their vulnerability and consequent need.

Defense Councils have turned to the Division for motion pictures, posters, discussion materials, and various other teaching aids and services which have helped to improve their local programs.

PROMOTES VICTORY CORPS AND WAR RECORDS PROJECTS

Officers of the ROTC volunteered their services through the Division to assist in training high school units of the Victory Corps. This activity was in cooperation with the State Department of Education.

A Florida War Records Project was sponsored by the Division to assemble pictures, letters, trophies, and interesting information which may eventually become a part of a State collection.

HELPS CREATE INTELLIGENT PUBLIC OPINION

An earnest effort has been made to help create an intelligent public opinion by channeling the war aims and plans of the administration to the people of Florida. Off-campus circulation of the materials of the University War Information Center was handled by the Division. Publicly owned motion picture machines in the State were focused on the emergency, and a reported audience total of more than 2,000,000 people saw the films circulated by the Division for departments and agencies of the Government.

In addition to films, Extension package libraries, books, lantern slides, pictures, prints, maps, charts, graphs and posters on general subects as well as on war information were lent to service centers, convalescent centers, field hospitals, Army camps, naval air stations, Coast Guard units, and the Red Cross for the benefit of those in the service. War production plants and civilian groups also used these materials, and hundreds of teachers employed them to vitalize their school programs and to offset war tension.

AIDS IN SOLVING TEACHER SHORTAGE

To relieve the war shortage of good teachers, professional courses were given in class centers and by correspondence study to help emergency teachers qualify for classroom jobs, and to enable experienced teachers to train for administrative responsibilities, renew certificates, or work towards college degrees.

ESTABLISHES PUBLIC SERVICE TRAINING CENTER

A Public Service Training Center was established to offer courses to municipal, county, and State employees. At present emphasis is placed on work for the agencies engaged in the protection of life and property. Old employees are being upgraded, and recruits replacing persons who have gone into the armed forces are being trained.

Already 3,397 auxiliary and regular police, railroad and special officers, Military Police, and Shore Patrol have taken the course in Basic Law Enforcement which the Division has given in 56 police schools.

Communities all over the nation have written for permission to use the manual and other text materials developed by the Division especially for these schools.

A course for waterworks and sewage plant operators was well attended,

and there is considerable interest in courses being developed for public health employees.

CONDUCTS SHORT COURSES ON WAR PROBLEMS

Since the war began, the Division has conducted short courses in cooperation with agencies and groups particularly interested in the social problems accentuated by the war, including juvenile protection, social welfare, health, sanitation, safety, and other specific areas of public good.

The Conference on Coordination of War Time Law Enforcement Activities was the most important of this biennium. Federal, State, county, and municipal law enforcement officers, representatives of the armed forces, and members of the State Defense Council threshed out problems which confronted them in Florida, and made over-all plans for close-knit cooperation.

The short course program during the biennium was seriously curtailed because of travel restrictions and lack of housing facilities.

CONCLUSION AND RECOMMENDATIONS

The great postwar challenge for adult education is conceded. The responsibility of the University through extension is fixed, and the nature and extent of the work are expressed in the directives of the Florida statutes. The University constitutional organization of the Division is adequate.

We must accept the challenge and expand to meet the needs of Florida. We must defend the field, in the interests of economy and efficiency, against exploitation and usurpation by old or new State agencies.

Therefore, it is recommended that the General Extension Division programs of education and service to Florida adults be adapted, improved, and enlarged as quickly as possible. The directive staff is loyal and experienced, and at Camp Roosevelt was proved competent to handle all the essential programs of any size. Its members have the techniques and methods, and are expert with the tools and media. If the State will give us the materials and manpower, we will do the job.

To upgrade our people for greater proficiency and productiveness, programs will be increased in number. To the many already begun for such groups as business and professional men, labor, women, welfare workers, teachers, and government employees will be added those for alumni, veterans, and others.

To teach Floridians to live democratically—to understand and to help solve the problems of human relations accelerated by the war—more definite plans and schedules of instruction will be made to help churches, civic groups, clubs, and other organizations.

To contribute towards the development of better government, we shall increase our service to government officials and employees, and promote better citizenship.

To activate the people's interest in democratic government and to encourage them to accept their full responsibility for citizenship, we shall greatly increase our effort to create an intelligent public opinion.

This Division will continue to initiate and carry on the extension work to be done in cooperation with government officials and employees. To supply information on request from government officials on practices and procedures in public administration, we need to revive our Legislative Reference Bureau, cooperating with the Department of Political Science and the College of Law.

Eight out of ten universities doing government research recognize the responsibility of their departments of political science in this connection. We also recognize the prerogatives of the Department of Sociology, and will work with it in handling information on social problems and social administration.

Through our Public Service Training Center, we shall continue to train government employees and to produce the essential manuals and handbooks, going directly to the various colleges and departments for the necessary assistance.

To implement all programs, we must greatly increase the amount of work to be offered in short courses, conferences, classes, and correspondence study. Courses must be re-evaluated and re-planned with new emphases and objectives in the light of recently developed knowledge, relationships, and experiences.

In all of our planning, we shall keep in mind that there is need for new concepts by which people may interpret the modern world, need for releasing the enormous knowledge in new areas, and need for developing new social attitudes.

Town halls, forums, and discussion groups must be organized, and schools for government and community leaders in these activities must be conducted—in keeping with the expressed interest of the Governor-Elect.

To organize and administer this work, it is recommended that a specialist in the language arts be appointed to take the place of the head of the Department of Auditory Instruction, long deceased.

To transfer information and ideals to the masses on the proper levels, we must build a greater collection of teaching aids designed for interpretation, simplification, and illustration in adult education. We must include materials for the instruction of school and adult groups interested in special fields.

To build this collection properly and to guide its effective use, it is recommended that the Department of Visual Instruction now be given its own separate head.

The Head of the Department of Information and Service, responsible for all of the extension library activities, recently resigned and must be replaced.

Also, a number of faculty men should become associated with the Division, not only to write courses, but to do specialized jobs.

Specific details for the development of programs and budgetary needs are presented to the President in "Post War Plans for Adult Education to be Carried On by the General Extension Division."

TABLE I.—CORRESPONDENCE STUDY

County	No. Enrollments	Towns Represented in Enrollment
Alachua	363	Alachua, Archer, Campville, Gainesville, Hawthorne, High Springs, Melrose, Newberry, Waldo
Baker	31	Glen St. Mary, Macclenny, Olustee, Sanderson
Bay	99	Bay Harbor, Millville, Panama City, St. Andrew, Southport, Tyndall Field, West Bay
Bradford	72	Brooker, Graham, Hampton, Lawtey, New River, Starke, Theressa
Brevard	24	Banana River, Cocoa, Melbourne, Titusville
Broward	44	Dania, Deerfield Park, Eau Gallie, Fort Lauderdale, Hollywood, Pompano
Calhoun	51	Altha, Blountstown, Clarksville, Frink
Charlotte	4	Punta Gorda, Murdock, South Boca Grande
Citrus	23	Crystal River, Floral City, Inverness, Lecanto

TABLE I.—CORRESPONDENCE STUDY, Continued

County	No. Enrollments	Towns Represented in Enrollment
Clay	57	Camp Blanding, Doctor's Inlet, Green Cover Springs, Middleburg, Penny Farms, Russell
Collier	15	Collier City, Everglades, Immokalee, Marco, Naples
Columbia	60	Fort White, Lake City, Lulu
Dade	305	Coconut Grove, Coral Gables, Goulds, Hialeah, Homestead, Kendall, Miami, Miami Beach, Richmond, South Miami
DeSoto	23	Arcadia, Fort Ogden, Nocatee
Dixie	21	Cross City, Fletcher, Old Town, Shamrock
Duval	355	Arlington, Atlantic Beach, Dinsmore, Jacksonville, Jacksonville Beach, Mandarin, Maxville, Mayport, Neptune Beach, South Jacksonville, Yukon
Escambia	216	Barth, Bay Springs, Bluff Springs, Cantonment, Century, Gonzales, McDavid, Molino, Myrtle Grove, Pensacola, Warrington
Flagler	7	Bunnell, Espanola
Franklin	26	Apalachicola, Carrabelle, Camp Johnson
Gadsden	28	Chattahoochee, Concord, Greensboro, Havana, Quincy
Gilchrist	10	Bell, Trenton
Glades	4	Moore Haven
Gulf	18	Port St. Joe, Wewahitchka
Hamilton	45	Jasper, Jennings, White Springs
Hardee	41	Bowling Green, Fort Green, Gardner, Limestone, Wauchula, Zolfo Springs
Hendry	13	Clewiston, LaBelle
Hernando	19	Brooksville
Highlands	42	Avon Park, DeSoto City, Hendricks Field, Lake Placid, Lorida, Sebring, Venua
Hillsborough	235	Brandon, Dover, Limona, Lithia, McDill Field, Plant City, Port Tampa, Riverview, Ruskin, Seffner, Tampa, Thonotosassa
Holmes	139	Bonifay, Dady, Esto, Noma, Ponce de Leon, Westville
Indian River	90	Fellsmere, Sebastian, Vero Beach, Wabasso, Winter Beach
Jackson	131	Alford, Bascom, Campbellton, Compass Lake, Cottondale, Graceville, Grand Ridge, Greenwood, Kynesville, Malone, Marianna, Sneads
Jefferson	35	Aucilla, Drifton, Lamont, Lloyd, Monticello, Wacissa
Lafayette	34	Day, Mayo, Steinhatchie
Lake	56	Altoona, Clermont, Eustis, Groveland, Howey-in-the-Hills, Lade Lake, Leesburg, Mascotte, Mount Dora, Mineola, Tavares, Umatilla
Lee	35	Alva, Bonita Springs, Fort Myers, Sanibel, Tice
Leon	147	Chaires, Camp Gordon Johnston, Missosukee, Tallahassee
Levy	53	Bronson, Cedar Keys, Chiefland, Gulf Hammock, Montbrook, Morriston, Otter Creek, Williston, Yankeetown
Liberty	41	Bristol, Hosford, Orange, Rock Bluff, Telogia
Madison	58	Ebb, Greenville, Lee, Lovett, Madison, Pinetta
Manatee	40	Anna Maria, Bradenton, Cortez, Long Beach, Manatee, Myakka City, Palmetto, Parrish
Marion	116	Camp Roosevelt, Citra, Dunnellon, Fort McCoy, Fairfield, Lynne, McIntosh, Ocala, Ocklawaha, Reddick, Silver Springs, Sparr, Summerfield, Weirsdale
Martin	15	Jensen, Jensen Beach, Indian Town, Stuart
Monroe	40	Key West, Marathon
Nassau	44	Callahan, Fernandina, Hilliard, Yulee
Okaloosa	114	Baker, Crestview, Eglin Field, Holt, Laurel Hill, Mary Esther, Milligan, Niceville, Valpariso
Okeechobee	28	Basinger, Okeechobee
Orange	107	Apopka, Gotha, Maitland, Orlando, Pine Castle, Plymouth, Winter Garden, Winter Park

TABLE I.—CORRESPONDENCE STUDY, Continued

County	No. Enrollments	Towns Represented in Enrollment
Osceola	16	Holopaw, Kissimmee, Narcoossee, Saint Cloud
Palm Beach	103	Azucas, Belle Glade, Boca Raton, Boynton, Camp Murphy, Canal Point, Chosen, Delray, Delray Beach, Jupiter, Lake Harbor, Lake Worth, Pahokee, Palm Beach, South Bay, West Palm Beach
Pasco	40	Dade City, Elfers, Lacoochee, New Port Richey, Odessa, San Antonio
Pinellas	85	Clearwater, Clearwater Beach, Crystal Beach, Dunedin, Largo, Pass-A-Grille, Pinellas Park, Saint Petersburg, Tarpon Springs
Polk	104	Alturas, Auburndale, Babson Park, Bartow, Davenport, Dundee, Fort Meade, Florence Villa, Frostproof, Homeland, Lake Alfred, Lakeland, Lake Wales, Mulberry, Nichols, Pierce, Polk City, Winter Haven
Putnam	77	Crescent City, East Palatka, Edgar, Florahome, Grandin, Hollister, Johnson, Palatka, San Mateo, Welaka
St. Johns	60	Hastings, Saint Augustine
St. Lucie	26	Fort Pierce, Walton
Santa Rosa	72	Bagdad, Jay, Harold, Holly, Milton, Munson
Sarasota	35	Bee Ridge, Englewood, Laurel, Sarasota, Venice
Seminole	30	Chuluota, Geneva, Lake Monroe, Longwood, Oviedo, Parola, Sanford
Sumter	31	Bushnell, Center Hill, Coleman, Oxford, Sumterville, Wildwood
Suwannee	61	Branford, Live Oak, O'Brien, Wellborn
Taylor	40	Foley, Perry, Shady Grove
Union	49	Lake Butler, Dukes, Raiford, Worthington
Volusia	89	Barberville, Daytona Beach, DeLand, DeLeon Springs, Holly Hill, New Smyrna, New Smyrna Beach, Oak Hill, Ormond, Osteen, Pierson, Port Orange, Seville
Waukulla	27	Crawfordville, Saint Marks, Sopchoppy, Waukulla
Walton	110	Darlington, DeFuniak Springs, DeFuz, Freeport, Lakewood, Mossy Head, Red Bay
Washington	133	Caryville, Chipley, Crystal Lake, Millers Ferry, Vernon, Wassau
Out of State:		
Other States	1,725	Alabama, Arkansas, Arizona, California, Colorado, Connecticut, Delaware, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Vermont, Virginia, Utah, Washington, West Virginia, Wisconsin, Wyoming
Dist. of Columbia	24	
Islands and Dependencies	2	Puerto Rico
Foreign Countries	17	Bahama Islands, Canada, Cuba, Paraguay, Venezuela

DISTRIBUTION

504 towns in 67 counties	4,762
44 other states	1,725
District of Columbia	24
1 Dependency	2
5 Foreign countries	17
Total	6,530

TABLE II.—EXTENSION CLASSES

County	Enrollments Formal	Enrollments Informal	Class Centers
Alachua	49	53	Alachua, Gainesville, High Springs
Brevard		95	Cocoa, Melbourne, Titusville
Broward		100	Ft. Lauderdale
Clay		700	Camp Blanding
Columbia	19	75	Lake City
Dade		522	Coral Gables, Hialeah, Miami, Miami Beach, Miami Shores
Duval	354	125	Jacksonville, Jacksonville Beach
Escambia	48		Century, Pensacola
Flagler		34	Bunnell
Hamilton		25	Jasper
Hendry		20	Clewiston
Hillsborough		387	Tampa
Holmes	22		Bonifay
Indian River		48	Vero Beach, Winter Garden
Jackson		20	Marianna
Jefferson		200	Monticello
Lee	12		Ft. Myers
Leon		50	Tallahassee
Levy	64		Chiefland, Otter Creek
Madison	62		Madison
Manatee	18	20	Bradenton
Marion		75	Ocala
Martin		25	Stuart
Monroe	69		Key West
Okeechobee		35	Okeechobee City
Orange		135	Orlando, Winter Park
Palm Beach		224	Lake Worth, Pahokee, West Palm Beach
Pasco		43	Dade City
Pinellas		115	Clearwater, St. Petersburg
Polk	198	35	Bartow, Lake Wales, Winter Haven
St. Johns		30	St. Augustine
St. Lucie		55	Ft. Pierce
Sarasota	14	25	Sarasota
Suwannee	57	50	Live Oak
Volusia		76	Daytona Beach, DeLand

DISTRIBUTION

Formal enrollments	986
Informal enrollments	3,397
54 class centers in 35 counties	4,383

TABLE III.—SHORT COURSES AND SPECIAL SUBJECTS

	Enrollment
Short Courses:	
1942-43	
Conference on Coordination of War-Time Law Enforcement Activities	310
Institute on Tuberculosis	50
Water and Sewage Treatment	188
1943-44	
Institute on Tuberculosis	56
Water and Sewage Treatment	156
Civilian Defense Leadership:	
Organization and Administration	447
Chemical Warfare Agents and First Aid	1,651
Control Centers	996

Miscellaneous:	
Sanitation Personnel Training	44
Automobile Insurance	106
Waterworks Operators	10
Plantings for Florida Homes	27
Interior Decoration	144
Engineering, Science, and Management War Training	167
TOTAL ENROLLMENT	4,352

TABLE IV.—SUMMARY OF INSTRUCTION

Enrollments

Correspondence Study		
College	4,943	
High School	1,110	
Non-Credit	103	
Professional Reading	374	6,530
Extension Classes		
Formal	986	
Informal	3,397	4,383
Short Courses and Special Subjects		
Short Courses	760	
Civilian Defense Leadership	3,094	
Miscellaneous	498	4,352
TOTAL		15,265

TABLE V.—SERVICE FUNCTIONS

Circulation Report of Loan Materials

	No. Counties Served	Circulation
Extension Library Service		
Reference Books	67	9,036 books
Unit Libraries	38	11,756 books
Package Libraries	55	10,520 articles
Dramatic Publications	55	2,472 plays
Audio-Visual Aids		
Films (22,627 showings)	58	9,631 film loans
Slides (1,281 showings)	22	427 set loans
Filmslides (615 showings)	10	143 roll loans
Prints	24	2,902 pictures
Recordings	33	1,536 records

Respectfully submitted,

B. C. Riley, *Dean*

REPORT OF THE ACTING UNIVERSITY LIBRARIAN

To the President of the University:

Sir: I beg to submit the following report on the progress made in the University Library for the biennium ending June 30, 1944.

Our personnel varied rapidly and greatly. We had at the end of the year 12 professional workers, 22 full-time assistants and 23 student assistants. There was not one person on the staff holding the same position she held at the beginning of the biennium. In spite of many changes, good work was done in all departments. Our regular budget remained about the same, but the generosity

of the General Education Board added $40,000, most of which was spent for books, allowing purchase of such valuable items as the American Culture Series, the Hakluyt Society publications, and Johnson's *Dictionary of the English Language*, 1755.

The portion of the General Education Board grant not spent for books was used to make a long needed Central Catalog. One of the regular catalogers started work on it in September, and incorporated it into the University Library Catalog. It contained an author, or main entry, card for every title in the departmental libraries on the campus. These entries were all made according to professional cataloging standards, and the cards were stamped to indicate the location of the books. The Libraries, with the number of cards for each, included: Law, 1,421; General Extension, 9,840; P. K. Yonge, 5,021; Fulk Administrators, 660; Agricultural Experiment Station, 16,803; Curriculum, 14,600; School of Forestry, 6,552—making a total of 54,897 entries. The cards in the Florida Union, Architecture, and Chemistry-Pharmacy Libraries were previously included. We hope that the Catalog will prove to be a great help to the faculty and the students.

The University became the Florida depository for Library of Congress cards. We received 158,601, all of them filed in three cabinets following our University Catalog. Eighty-two of the proposed 160 volumes of the Library of Congress Catalog of Printed Cards have been received. These volumes precede the depository cards.

The Florida Union Library author and title catalog was corrected and the books were revised every two weeks by one of our staff members. The catalog of the Chemistry-Pharmacy Library was completed, and the usefulness of the Library was greatly increased by the addition of important journals, texts, and treatises in the various fields of chemistry and pharmacy.

One new full-time position was created—that of Documents Librarian. This department now has 6,812 items in Federal, 992 in State, and 242 in foreign documents. The number is being increased by gift, exchange, depository, and purchase as rapidly as possible.

The Reference Department functioned with one trained member and some student assistance. Thirteen hundred and fifteen volumes were added. The Shaw List was rechecked and as many items as were available were ordered. Aisle shelves relieved some of the congestion, as did a new filing cabinet for pamphlet material. Current material in the collection on war information—now mostly on postwar planning—was displayed on a table set aside for the purpose. The Florida Collection gained 968 items. A new cabinet was added here, too. The Reference Librarian answered 111 reference questions by mail, made requests for 436 items of free material, and requested 133 loans from other libraries.

Our shelving space became so crowded that the Circulation Department undertook to move some of the less frequently called for books to the fourth and fifth floors of the Law Building. A faculty committee assisted in the selection and 27,000 volumes were transferred. This cleared 904 shelves and the entire collection was then shifted to make room for the books that had been stacked on the floor and for the new books made ready. During the biennium, the circulation of books totaled 140,622, distributed as follows: faculty members, 10,192; students and others, 38,676; reading rooms, 25,936; carrells, 325; Reserve Room, 37,093; and General College Reading Room, 28,400. Since the number of student

assistants available grew smaller and NYA aid stopped, several Gainesville girls were employed, temporarily, to fill in. The positions of Student Supervisors were discontinued. Time cards and payroll make-up were moved to the Librarian's Office. Perpetual inventory was taken to keep up with the books and assure their proper location. Posters and displays were changed frequently. A new section was set aside for books on liberal education for faculty use. Army and Air Corps Cadets were encouraged to use the University Library and checked out 1,759 books from January through June, 1944. Study halls with instructor supervision for trainees were held in the General College Room.

The Periodicals, Binding, and Exchange Department operated with two on its professional staff, although one of these gave about half-time to supervising the General College Room. There were 752 periodicals received on subscription, 326 as gifts, and 312 on exchange, making a total of 1,390. Forty-four new subscriptions were added. Serial runs were purchased for a number of important periodicals, such as the *Archives of Neurology and Psychiatry*, the *Modern Language Review*, and the *Journal of the National Institute of Social Sciences*, to name only a few. Every effort was made to fill in gaps in periodicals either by purchase or exchange. Sixty-seven Florida periodicals and 58 Florida and 20 out-of-state newspapers were received. There were 4,597 volumes bound and 140 new titles added to the binding list. Four duplicate exchange lists were sent out, resulting in 90 bound and 3,817 unbound pieces sent out, and 322 bound and 3,979 unbound pieces received. The Exchange Division sent out 808 copies of the Short Title Checklist of Official Florida Publications which was prepared by the Reference Department. The Checking Edition of the first supplement to the Union List of Serials was checked for our holdings.

The purchase of so many more books added greatly to the work of the Order Department. When the load was greatest, some extra help was provided and the books were handled expeditiously and well. When the peak passed, the Department carried on with two people.

The weight of the increased buying power fell heaviest on the Catalog Department which was already far behind in its work. By streamlining the work wherever possible and cutting out all processes not absolutely essential, it kept up with all new purchases and took up over half of the slack. In this biennium 26,519 volumes were acquired for the University Library, 1,350 for P. K. Yonge, and 1,054 for General Extension, a total of 28,923. The number cataloged was 30,990 volumes and 17,517 titles, which included P. K. Yonge and General Extension Division books and 404 reels of microfilm. Cards added numbered 105,195, of which 6,008 were for P. K. Yonge and 2,198 for General Extension. The Catalog grew from four sections to ten. This included three cabinets for the Library of Congress cards.

A number of fine gifts, comprising some 2,500 volumes, were received from over 300 donors. The Friends of the Library issued five attractive bulletins which undoubtedly resulted in some of the gifts.

The University Library at the end of the biennium had 165,692 volumes plus 6,819 for P. K. Yonge and 14,724 for General Extension, all fully cataloged. The Central Catalog added 40,036 cards which represented 58,883 volumes for Law, Fulk Administrators, Agricultural Experiment Station, Curriculum and Forestry Libraries that had not been included. This made a total of 246,118 volumes in all of the Libraries. This compared quite favorably with the figures given in the report for the biennium ending June 30, 1938, which showed

101,225 volumes in the University Library and 140,884 volumes in all the Libraries. According to statistics of Southern Colleges and Universities in 1942-43, we ranked in sixth place with respect to the number of volumes added during the year. More recent statistics would probably give us an even more favorable standing.

The Library Committee was enlarged to include members of the various Libraries as well as representatives from schools and departments in the University. It is an interested, active group, responsible in a large measure for library development on the campus.

Respectfully submitted,

NELLE BARMORE, *Acting Librarian*

REPORT OF THE PROFESSOR OF MILITARY SCIENCE AND TACTICS

To the President of the University:

SIR: I submit herewith the following report on the activities of the Department of Military Science and Tactics for the biennium ending June 30, 1944.

The courses of instruction have been carried out in accordance with the War Department program of training. There have been several important changes in the methods of operating the Military Department since the last report of 1942. Beginning with the summer of 1942, the War Department discontinued indefinitely the practice of operating summer camps for the Reserve Officers Training Corps. Because of this change in training, it was no longer possible for ROTC commissions to be issued by the University at the time of graduation.

Our fourth year advanced ROTC students were called for active duty in the summer of 1943 and were commissioned after the successful completion of the Officer Candidate course. During the same summer, this Department took over the Army Specialized Training Program in addition to ROTC activities.

The War Department did not offer any advanced contracts for our ROTC students for the year 1943-44, due to the fact that all eligible ROTC students were in the armed services. Later in 1943 the War Department returned third-year ROTC students to the University of Florida in uniform to continue academic work and complete ROTC instruction. In the spring of 1944 these juniors were taken from the University and sent to Officer Candidate Schools, where the majority of them have received commissions.

We have had many changes in personnel and in the details of instruction. We no longer have branch instruction. We have disposed of all Field Artillery material and at present we are giving basic instruction which is essential for all arms. We have disposed of the wooden training rifles and have on hand a supply of the rifles previously used.

In spite of the various difficulties and changes in conditions, we have maintained the highest rating of efficiency, as shown by our Annual Inspection.

Respectfully submitted,

RALPH L. JOYNER, *Lt. Colonel, Field Artillery,*
P.M.S.&T.

REPORT OF THE ACTING DIRECTOR OF THE INSTITUTE OF INTER-AMERICAN AFFAIRS

To the President of the University:

SIR: I beg to submit the following report on the activities of the Inter-American Institute for the biennium ending June 30, 1944.

During the period covered by this report the Institute was concerned chiefly, but not exclusively, with Latin-American students brought to the University under its auspices. In 1942-43 there were twenty-five students representing ten Latin-American countries (including Puerto Rico) in residence at the University. The following year there were on the campus thirty-two students, representing twelve Latin-American countries.

Degrees were conferred in 1943 upon five Latin-American students, and in 1944 the same number. Six were awarded the master's degree, and four the bachelor's degree. On the basis of enrollment, this is considered a creditable performance.

With respect to curricula, a course in English was established with the help of the Coordinator of Inter-American Affairs in the summer of 1943. Eight scholarships were awarded and the salaries of two instructors were paid. The course was not renewed for lack of funds.

In February, 1944, a graduate course was set up for the first time in sanitary engineering. Five Latin-American graduate students are now registered for the course. The Institute also cooperated in bringing to Florida in the summer of 1944 a Brazilian trainee of the Extension Service of the United States Department of Agriculture. This student is now acquainting himself with practical phases of the agricultural industries of the State. Finally, plans are being formulated to open the School of Forestry in 1945 to a group of Latin-American students, if official assistance can be obtained for the project.

Other activities of the Institute during the biennium included a lecture tour of the universities and colleges of the State, arranged in 1943 by the Institute for a Chilean and a Paraguayan lecturer, and lectures by the Acting Director to the freshmen class of the University, to various high schools, and to civic groups, including the Rotarians, the Kiwanians, and the Junior Chamber of Commerce. The Acting Director is also serving his second year as a chairman of the Inter-American Division of the State Defense Council and Chairman of the Inter-American Division of the State Chamber of Commerce. Radio broadcasts have been made and motion pictures have been shown from time to time on the countries of Latin America.

Among the general recommendations for improvement which seem appropriate, I advocate the transfer of the offices of the Institute to a cooler floor, the continuation of the scholarship aids, and the introduction of a special comprehensive course in English for Latin Americans, which will serve as a substitute for C-3, and which will comprise the following features: (a) reading of simplified English texts; (b) study of basic English grammar, presented partly in Spanish; and (c) practice in comprehension and conversation with the aid of mechanical appliances furnished and operated by the Speech Department. I also recommend that a year's credit be allowed those Latin-American students who show a knowledge of Spanish and Portuguese comparable to the knowledge of English required for C-3, and that a Spanish House be organized to afford

teachers on opportunity to learn conversational Spanish, and later Portuguese, during the Summer Sessions of the University.

Respectfully submitted,

JOHN F. MARTIN, *Acting Director*

REPORT OF THE DIRECTOR OF THE FLORIDA STATE MUSEUM

To the President of the University:

SIR: In submitting my report for the biennium ending June 30, 1944, I wish to say that the period represented has not been a very propitious one. However, we are not totally discouraged over the results attained.

In my last biennial report I mentioned the need for the extension of the Hall of Ornithology on the second floor. I am now glad to report that fifteen more habitat group cases for this extension are now more than half completed, and that all the cases are set up and are awaiting completion. Considerable headway has been made in the preparatory in restoring a large number of specimens of a perishable nature, and in preparing them for exhibition.

For the biennium our records show 90 accessions of 32,261 specimens, valued at $55,590.20. To date, we have a total of 3,667 accessions and 339,295 specimens, which are valued at $469,822.79.

The visitors' register indicates that our attendance for the biennium was 48,739 persons, making a total of 140,303 registrants since we have occupied the present location.

What few recommendations I have will appear in the budget.

Respectfully submitted,

T. VAN HYNING, *Director*

REPORT OF THE ACTING DIRECTOR OF THE FLORIDA UNION

To the President of the University:

SIR: I respectfully submit the following report for the Florida Union, student activity center of the University of Florida, for the biennium July 1, 1942 to June 30, 1944.

Director D. R. Mathews is on leave of absence to serve in the Army and the acting directorship was filled by Mr. J. E. Johnson who died during the past winter.

One of our primary objectives has been to keep this building a wholesome, clean, attractive, and useful place, maintaining, as far as possible, the same atmosphere that has always prevailed under normal conditions. In spite of the decreased civilian enrollment in the University, there has been little or no reduction in the usual routine of student services in the building, with the exception of a cessation of many club meetings and the discontinuance of other student offices such as those of the *Orange Peel* and *Seminole* publications. With decreased enrollment there has come inevitably a severe cut in student fees to

the Union and business-as-usual conduct of the building has been increasingly difficulty. However, our economy measures have been designed to reduce our hours of operation and the duplication of personnel rather than to curtail the quality of our service.

There have been several changes and improvements in our static facilities. A prayer and meditation room has been set aside, two club rooms have been converted into a soldiers' lounge and a social lounge, and Air Corps offices have been housed. A new automatic movie screen was installed in the auditorium and a concrete floor laid in the projection room. A number of pieces in the lounge were re-upholstered and several valuable and irreplaceable articles have been temporarily stored to protect them from hard usage during this transitional period.

As a special service to the students and the University in general, we have operated for the past half-year a Western Union sub-station which to date has sent over 1,500 messages and delivered some 4,000. We have also sponsored the organization of University women employees into a club known as the Florida Campus Club for the purpose of giving them greater identification with University social and official functions.

For the service men in particular the Union has endeavored to offer programs and courtesies to promote good will and to assist the University in its effort to treat these men as an integral part of University life. Receptions were given in honor of incoming units; a Chaplain's Hour was offered each day; a soldier sewing service was conducted during which time, with the cooperation of the University Women's Club and the American Red Cross, almost 2,000 garments were repaired by nearly 100 workers; Army classes and movies were held; special dances and other functions, including a homespun Christmas Day party, were a part of our usual routine.

Camp Wauburg, a recreational lake resort sponsored by the Florida Union, has served many student organizations and has been used by military units for both social and instructional purposes. In addition to this, thousands of individual University students and faculty members have made use of the camp facilities.

With the completion of the new wing, upon which construction has been temporarily halted, and with the increase in the student fee from $1.00 to $2.00 per semester for the regular session and from 50 cents to $1.00 per summer session—a change which has already become effective—the Florida Union should be able to give increasingly more complete and valuable services to the students of the University and, consequently, to the University as a whole.

Respectfully submitted,

LESTER L. HALE, *Acting Director*

REPORT OF THE ACTING DIRECTOR OF THE DIVISION OF ATHLETICS AND PHYSICAL EDUCATION

To the President of the University:

SIR: I have the honor to submit to you the report for the Division of Athletics and Physical Education for the biennium ending June 30, 1944.

THE PROGRAM OF THE DIVISION

The program of intercollegiate athletics for the biennium consisted of the 1942 football schedule and the 1942-1943 basketball schedule. The football team competed in ten games, winning three and losing seven. The basketball team competed in sixteen games, winning nine and losing seven. By the end of the basketball schedule it became evident that in the war emergency there would be few qualified candidates for athletic teams and that an attempt to maintain a program of intercollegiate athletics might not be consistent with the best interests of the country. Accordingly participation in intercollegiate athletics was discontinued. The University continued its membership in the Southeastern Conference, however, and has participated in the business sessions of the Conference. Following the annual meeting of the Southeastern Conference in December, 1943, it appeared that conditions within the Conference and throughout the nation were such that it would be advisable for the University of Florida to resume intercollegiate athletics in the autumn of 1944. Favorable action was taken and plans were formulated to this end.

A program of training for physical fitness for all male students physically able to participate was established with the opening of the 1942 Summer Session. When detachments of the Army Air Corps and the Army Specialized Training Program were located at the University, the athletic staff assumed the additional responsibility for the physical training program for the personnel of these detachments.

The program of intramural athletics was continued in spite of the heavy loads which were assumed by the athletic staff in connection with the aforementioned activities. It is significant that the intramural program has functioned very successfully in spite of wartime conditions. The record shows that 3,288 players participated in intramural sports in the period 1942-44. An additional significant item that should be recorded is contained in Head Coach Lieb's statement: "I believe I can safely say that 1,000 men have been taught to swim in the past two years."

IMPORTANT PROBLEMS AND PROJECTS

It is noteworthy that with five members of the athletic staff in military service and with only two replacements, the entire program of activities as described above has been carried on with a high degree of proficiency and success. The coaching staff has been active in promoting good will and cooperation among the high schools of the State and every legitimate effort has been made to induce boys graduating from Florida high schools to attend this University.

FACILITIES

There has been a concerted effort to maintain the athletic buildings and grounds in good condition with a minimum of expense. No additions have been made to the plant.

PERSONNEL

There were no important changes in staff during the biennium.

RECOMMENDATIONS

If an adequate program of physical training is to be offered after the war, it will be necessary to have expanded facilities in playing areas and in dressing quarters. The most pressing need, in any event, is a new gymnasium. The

present quarters are very inadequate. Many students come to the University from high schools in which the gymnasiums and the gymnasium facilities are superior to those at the University. When compared with that of other universities, our gymnasium service is a severe handicap in attracting high school boys to attend the University of Florida. The need for a new gymnasium can scarcely be overemphasized.

WAR ACTIVITIES

The war activities of the Division of Athletics, aside from the physical fitness program for civilian students and a class for residents of the community, have been carried on under the supervision of the Director of War Training Courses. The records indicate that the compulsory physical fitness program for civilian students has produced good results. It seems safe to say that this program has been a direct and effective contribution to the war effort.

Respectfully submitted,

PERCY BEARD, *Acting Director*

REPORT OF THE ACTING DIRECTOR OF PUBLICITY

To the President of the University:

SIR: The Department of Publicity, which includes for budgetary purposes the office of the Chief Clerk in Charge of Alumni Affairs, has operated during the past biennium under rather serious handicaps, particularly with respect to a personnel turnover involving the Chief Clerk and the employees under her jurisdiction. Despite these handicaps, the work in connection with military service aspects of alumni affairs has been kept up-to-date and in excellent condition.

The Department has continued to place special emphasis upon the interpretation of the University's objectives, functions, and activities. Some indication of its news coverage may be gained from the fact that during the past six months of the current calendar year, it has issued 75 mail releases of general news, 100 Associated Press news dispatches, 71 Associated Press sports releases, and 22 sports mail releases, totaling approximately 40,000 words.

In the period under review, the Alumni Office and the publicity staff have cooperated in establishing and maintaining on a monthly basis *The University News of the Fighting Gators.* This publication, which has reached 4,500 alumni in the armed services through their home folks, has brought inestimable good will to the University. Notes of appreciation from both service men and their families number into the hundreds.

More than 8,000 former students were in service on June 1, 1944. Of the alumni among these students, nearly 80 per cent were officers, some having received their commissions through the ROTC at the University, others having earned commissions after their entrance into the armed forces. Available records indicate that 133 alumni have given their lives, 56 have been reported missing, 15 have been taken prisoners, and an indeterminate number have been wounded in action.

Since the beginning of the war, Florida men have been frequently decorated. Through June 1 of this year, 157 alumni had won 376 decorations, ranging from

the Purple Heart to the Distinguished Service Cross. On the same date there were seven aces among the alumni. The University may be justly proud of the records that Florida men are making on all the fighting fronts and in all branches of the armed services.

Respectfully submitted,

W. L. Lowry, *Acting Director*

REPORT OF THE DIRECTOR OF RADIO STATION WRUF

To the President of the University:

Sir: In making this biennial report, I desire to outline briefly a few of the outstanding accomplishments of the Station and to enumerate its needs for the immediate future.

In furthering the war effort, WRUF has given to the Federal Government, each year since December 7, 1941, over $100,000 worth of time, evaluated in terms of our card rates.

We have carried on our sustaining educational program even though the Station has suffered financially from its policy of allotting the most desirable time for advertisers to University and public service programs. This has inevitably cut down the revenue of the Station, but we have increased our value as far as public service is concerned.

The Station has outgrown its original and limited facilities. The increase in time, in personnel, in commercials, and in all of our activities presents a need for many changes. Additional office facilities and studios, as well as the necessary improvements appertaining to them, should be provided for at once. Our limited facilities hinder greatly the work we are endeavoring to do. New additions to the building should be made as soon as war conditions warrant them. The Federal Communications Commission is very desirous that we move the transmitter to another location in order to give the people in Gainesville and its suburbs better radio reception.

Our technical equipment needs modernizing and we are confronted with the rapid advances being made in the field of radio, such as Frequency Modulation, Television, and Facsimile. A thorough study has been made by the staff of WRUF and, if the University of Florida is to maintain its place in the rapidly growing science of radio, we recommend that new applications be made before the Federal Communications Commission and that FM equipment be purchased immediately. Television, due to its cost, is not practical for us at present, but, in my opinion, it is a matter of only two or three years until it will have a very definite place in the field of radio. It is further recommended that in view of the rapid growth of radio—FM, Television, and Facsimile—definite plans for installation of these new and modern improvements be adopted.

Radio Station WRUF has been cited nationally several times during the past two years for outstanding service in various fields, including fire prevention, war effort drives, and work in behalf of the Army, Navy, and Marine Corps.

Radio today probably influences more people than any other medium we have, in that it reaches virtually everyone, the illiterate as well as the literate. This fact alone carries a tremendous demand for college-trained men in the field of

radio. WRUF recognized this need as early as 1931 and has furnished many outstanding men to the radio field.

In closing, let me reiterate the great need for increased facilities and modernized equipment, which should be secured just as soon as material is made available after the present emergency is over.

Respectfully submitted,

GARLAND POWELL, *Director*

REPORT OF THE UNIVERSITY PHYSICIAN

To the President of the University:

SIR: This Department has operated with considerable difficulty during the past biennium. The Army called both of our resident physicians, and during the past two years we have operated with a part-time resident physician and the assistance of one Army physician detailed here for duty with the Air Corps group. The nursing staff has not been affected to a great extent and we have been able to obtain suitable help up to the present time.

The sick rate of the Army group was exceptionally high when compared to that of the student group and the work of the Department during the biennium was approximately the same as for the previous biennium, in spite of the decreased number of students attending the University.

The equipment of the Infirmary has undergone considerable deterioration during this time with ordinary wear and tear and no effort has been made to replace equipment during the war.

The Health Service has maintained its usual high standards in spite of the reduction in personnel and, in addition to caring for the sick, we have maintained constant supervision and physical examination of all food handlers employed at the University Cafeteria, the P. K. Yonge Cafeteria, the Soda Fountain, and the Dairy. The general sanitation of the campus has been under constant supervision by this Department.

During the biennium there have been no epidemics of any consequence and no student deaths.

Respectfully submitted,

GEORGE C. TILLMAN, *University Physician*

REPORT OF THE DIRECTOR OF THE WAR TRAINING COURSES

To the President of the University:

SIR: As Director of War Training Courses I take pleasure in submitting to you the following report on the conduct of the war training courses carried on at the University of Florida during the biennium ending June 30, 1944. Though the University has served the Government in many ways throughout the emergency, this report is confined to the programs of the Army Air Forces and Army Specialized Training groups, the administration of which was the responsibility of the Director.

ARMY AIR FORCES PROGRAM

At the end of February, 1943, the 62nd College Air Forces Training Detachment (Air Crew) was activated at the University of Florida with a quota of 750 trainees. Of this quota, 743 trainees were actually enrolled when instruction started. Beginning with the following May and continuing with reasonable regularity with the graduation and replacement of approximately 150 trainees monthly until the close of the CTD Program in June, 1944, the University served in the training of 2,994 members of the Air Crew.

The purpose of the program, which was planned for a twenty-week period of instruction, was to prepare academic students, mentally and physically, for intensive ground training in flying schools. The men selected for this training were members of the Air Corps of the United States Army who had been classified for Air Crew training through mental and physical screening tests. They were given three types of training: academic, physical, and military. The first prepared them for flight and ground school instruction in the Air Forces Flying Schools; the second equipped them to absorb future intensive training without undue fatigue or ill effects; the third provided them with instruction in basic military indoctrination, military customs and regulations, and infantry drill.

The University was responsible for the housing and messing of the trainees, for the academic instruction, and for the physical training required by the program, while officers and men of the Air Corps were assigned to the detachment to give overall supervision to the program and were delegated specific responsibility for the military training. The academic program consisted of mathematics, physics, history, geography, English, civil air regulations, and medical aid. In addition to work in class and laboratory, supervised study was required in each of the major subjects of the program.

The physical training program, although under the general direction of the University authorities, was more nearly autonomous than any of the other areas of instruction, since the Army, through its own supervisors, attempted to secure a greater uniformity of practice in that division of the trainees' program. Florida's climate added greatly to the success of the physical training program by permitting almost continuous outdoor activity. The excellent health and physical vigor of the trainees and the lack of infectious diseases among them were noticeably evident during their stay here.

Under the direction of the officers of the Air Corps who were assigned to the detachment, the trainees were given military instruction, including ten hours of flight instruction. All matters of discipline were likewise the responsibility of the military officers in charge.

ARMY SPECIALIZED TRAINING PROGRAMS

In May, 1943, there was activated at the University a unit of the Army Specialized Training Program, officially known as Service Command Unit No. 3418, ASTP. It became the responsibility of the University to house and mess approximately 600 trainees and to provide instructional facilities (plant and staff) for them. The program, which operated on terms, or cycles, of twelve weeks, was designed to cover both the Basic Phase Curriculum and the Advanced Phase Curricula in Engineering. The University received an original allotment of 494 trainees in these curricula. In the following October, 108 former advanced

ROTC students of the University were returned to the campus by the Government to pursue their studies and military training until openings occurred in Officer Candidate Schools. These trainees continued in the University until late spring, 1944, many of them being able to complete their work for a degree. With the cycle beginning in December, 1943, the University received an allotment of students under the Army Specialized Training Reserve Program, and since then has continuously handled a contingent of these seventeen-year-old students. These students have pursued a curriculum comparable in nature and scope to the Basic Phase Curriculum of the ASTP and have been given such military training as will make them better soldiers when, upon reaching selective service age, they are inducted into the service of the United States Army. In March, 1944, fifty trainees in the Preprofessional Curriculum were assigned to the University. These men, carefully screened and selected, were premedical and predental students pursuing a prescribed accelerated program leading to matriculation in medical or dental schools. In all these accelerated programs, as well as in that of the AAF, the academic load was on an average twenty-four hours a week in contrast to the normal civilian academic load of sixteen hours. During the year ending June 30, 1944, the University had enrolled 1,499 ASTP trainees and ASTRP students. Combining enrollments in all its war training groups—AAF, ASTP, ASTP-ROTC, and ASTRP—the University began with 743 men in February, 1943, reached a peak of 1,517 in the following December, and diminished to a total of 225 by June 30, 1944.

The ASTP had as its objective the technical preparation of personnel needed by the several services of the United States Army. At the University the trainees in the Basic Phase Curriculum were prepared for the advanced phase engineering curricula; the trainees in the Advanced Phase Curricula were prepared for technical services in the Army Ground Forces, Army Services, or the Army Air Forces. In the early stages of the program, there were Advanced Phase Engineering trainees in chemical engineering, civil engineering, electrical engineering, and mechanical engineering. The Curriculum of the Basic Phase consisted of chemistry, mathematics, physics, English, history, geography, and engineering drawing. In the Advanced Phase Engineering Curricula and in the Preprofessional Curriculum, the courses of instruction varied with the areas, but for the most part were those usually required by professional schools of engineering, medicine, and dentistry. As with the Army Air Forces, the University assumed responsibility only for instruction in the academic work and for physical training, while the University Commandant and his staff had charge of the military training and discipline.

GENERAL ADMINISTRATIVE FEATURES

Prior to the activation of the war training courses on the campus, the President of the University appointed a Director of War Training Courses and a committee, of which the Director was chairman, charged with the responsibility of policy formation relating to the academic phases of the programs. The Director, who was assisted in carrying out the academic programs by University staff members appointed as chairmen of the courses and by administrative officers of the University, was responsible directly to the President for the conduct of the courses. Moreover, he acted as liaison officer between the University and the military staff on all matters relating to the University's responsibility for instruction. In May, 1944, the present Director was appointed to succeed

the former Director, who resigned to accept the deanship of the College of Education of The University of Georgia. Despite the ever-arising changes and complications in the programs and the consequent adjustments by the staff and the administration, there has been throughout a maximum of cooperation and a minimum of friction.

Whenever possible, the academic and physical training programs of both the AAF and the ASTP were staffed by regular members of the faculty, who were generally asked to continue teaching in their field of major interest. Some were assigned to other fields where the need was greater and where their background gave promise of effective instruction. In some areas, notably physics and mathematics, it was necessary to bring to the campus persons of nonpermanent University status. Approximately 135 different members of the University staff served in an instructional capacity in the University's war training programs. More than sixty-five of these were asked to serve in fields other than their major interest. In addition, thirty-eight instructors were added to the staff on a temporary basis to assist with instruction in these programs.

Every instructional aid and facility of the University was made easily accessible to the men in the war training programs. The University Library was made available both for supervised study in the AAF program and for general use by all trainees. Academic schedules were arranged by the Registrar's Office and a complete and accurate file of each trainee's achievement is a matter of permanent record. Through the use of the facilities of the University Board of Examiners it was possible to give better and more frequent comprehensive tests and examinations than would otherwise have been possible. The University in general exhibited the same concern for the academic welfare of the trainees as for its civilian students in normal times.

The University endeavored to provide a complete service for all enrollees in the war training programs. All of the men were housed in the University's Residence Halls, and mess was provided in the University cafeterias. Orientation sessions were held with each incoming group and personnel data were obtained. The Florida Union was placed at the disposal of the enlistees. Special entertainment programs were arranged, a service men's lounge was provided, and a sewing service established—all for the comfort and welfare of the trainees. The equipment of the University Speech Clinic was available throughout the programs, and any trainee with speech defects could schedule a period for help in correcting his handicaps. In short, the University exerted every effort to make them feel that they were "Florida men."

I feel that the presence of the trainees has been highly advantageous to the University and that, through the use of its facilities, the University has made a notable contribution to the Government in the training of nearly 4,500 men for the armed forces.

Respectfully submitted,

J. Hooper Wise, *Director*

The University Record

of the

University of Florida

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BIENNIAL REPORT OF THE PRESIDENT TO THE BOARD OF CONTROL

For Biennium Ending June 30, 1944

Vol. XL No. 1 January 1, 1945

Published monthly by the University of Florida, Gainesville, Florida

Entered in the post office in Gainesville, Florida, as second-class matter, under Act of Congress, August 24, 1912

Office of Publication, Gainesville, Florida

REPORT OF THE PRESIDENT OF THE UNIVERSITY

To the Honorable Board of Control of
State Institutions of Higher Learning of Florida.

GENTLEMEN:

My last biennial report covered the period embracing the beginning of the war and certain adjustments that were made necessary at the University because of that fact. During the biennium closing June 30, 1944, the complete facilities of the University were involved in the war effort. At the same time, the entire program of service to civilians was kept intact. The details of all activities are set forth in the reports of Deans, Directors, and other administrative officers. I shall confine myself to the principal features and some of the high lights of the period, attempting in short compass to summarize this critical two-year interval. The period was one of constant readjustment and intense activity, and the University carried on, under most difficult conditions, with more success and less impairment of its normal functions than could have been anticipated.

In the early stages of the war, the enrollment did not fall so rapidly as might have been expected. In the academic year 1941-42, which marked the opening of hostilities, 3,239 students were enrolled in the regular session and 3,202 in the summer terms. During the biennium under consideration the enrollment began to drop, and this tendency was greatly accelerated by the amendment of the Selective Service Act which reduced the induction age to eighteen years. Deferments were granted to a limited number of students who were preparing for certain critical occupations in the fields of engineering, physics, chemistry, and other technical areas essential to the best conduct of the war. Aside from these deferred students, available material for civilian programs at the University of Florida was confined to boys with physical disabilities, others under eighteen years of age, and a few women. By the end of the biennial period there were fewer than a thousand civilian students on the college level in the University. To these were added about five hundred students in the P. K. Yonge Laboratory School.

During the biennium the policy of the administration has been to hold together the staff of the University as effectively as possible while making the maximum contribution to the war effort, and preserving intact all of the services demanded for civilians. The reduced enrollment and the demand for trained personnel by the armed forces made it possible to grant many members of the staff leaves of absence for service in the armed forces or in war production activities. A high degree of flexibility has been maintained and, apart from the loss of some members of the staff who left the University for more remunerative positions, the integrity of the institution has been preserved.

A principal factor in carrying out the above policy has been the ability to use our facilities in large measure for assisting in the winning of the war. In my last report I described a Chemical Warfare School, the Civilian Pilot Training Program carried on in cooperation with the Civil Aeronautics Administration, and other war efforts. Our war activities have been greatly expanded during the biennium under discussion. Three extensive training services, including an Officer Candidate School, an Army Air Forces Air Crew Training Program, and the Army Specialized Training Program for engineers and technical personnel, have been operated by contract with the War Department.

The Extension Services, both General and Agricultural, have carried on enlarged programs, and wartime research has been stepped up tremendously both in engineering and in agriculture. Some of this research is confidential and may not be revealed until the war is over.

TRAINING PROGRAMS

On September 28, 1942, an Officer Candidate School was activated at the University of Florida for the purpose of training officers who would serve the Army in an administrative capacity. There were about six of these schools in the country, the third of which was established at the University of Florida. Over 1300 officers were instructed at and graduated from this School, nearly all of whom are now actively serving in the Army. The School was operated directly in cooperation with the Adjutant General's Office, War Department, and received high commendation from the War Department.

Following negotiations with the Army Air Forces, in February, 1943, there was activated at the University a program for the training of air cadets with a quota of 750 trainees. Beginning with the following May, and continuing with reasonable regularity with the graduation and replacement of approximately 150 trainees monthly until the close of the program in June, 1944, the University served in the training of 2,994 members of the Air Forces. The University was responsible for the academic instruction and physical training demanded in the program, while officers and men of the Air Corps were assigned to the detachment to provide over-all supervision for the program and specific responsibility for the military training. The academic program consisted of mathematics, physics, history, geography, English, civil air regulations, and medical aid. Each trainee also had ten hours of flight instruction.

In June, 1943, there was activated a unit of the Army Specialized Training Program, having as its objective the preparation of technicians needed for the several services of the United States Army. The program at the University, to which 494 trainees were originally allotted, was designed to cover the Basic Phase Curriculum and the Advanced Phase Curricula in Engineering. These were followed by a group of approximately 100 former advanced ROTC students of the University, whom the military authorities returned to pursue their studies and training until openings in Officer Candidate Schools occurred, by nearly fifty trainees in the Preprofessional Curriculum leading to medicine and dentistry, and by allotments of reservists. In all, up to July 1, 1944, the University had enrolled nearly 1,500 men in these various phases of the Army Specialized Training Program. In the Basic Phase Curriculum, the trainees studied chemistry, mathematics, physics, English, history, geography, and engineering drawing; in the Advanced Phase, the trainees pursued those studies usually required by professional schools of engineering, medicine, and dentistry. As with the Army Air Forces, the University assumed responsibility for instruction in the academic subjects and for physical training, while the Commandant and his staff had charge of the military training and discipline.

Mr. Kenneth R. Williams, who was appointed Director of War Training Programs, resigned in May, 1944, and was succeeded by Dr. J. Hooper Wise. The President of the University served as a member of an Advisory Committee consisting of ten college presidents who were asked to cooperate with the War Department in planning and developing the Army Specialized Training Program.

Although contracts with the Federal Government did not permit profits to be made by the institutions having war training programs, a considerable saving was effected through the absorption by the Government of costs for operation, equipment, instruction, and other necessary functions which otherwise would have had to be paid from State funds. In the training of Air Cadets and in the Army Specialized Training Program a total of more than a million and a quarter dollars was paid to the University by the Government. Of this amount something over $750,000 was expended on operation, on the Cafeteria, Residence Halls, Infirmary, Florida Union, Book Store, and on other service units. During these programs 1600 men were fed three times a day and all were housed in the University Residence Halls. A sum of $527,238.07 was transmitted to the State Treasury for payment of salaries, use of facilities, and depreciation on buildings and equipment. There was a net saving on the University budget of $205,333.36, of which $135,907.00 was used to balance the budget. A large reduction in anticipated income from student fees was brought about by the drop in enrollment. Details of finances during the biennium are set forth in the report of the Business Manager, but it may be noted in passing that there was a balance of $69,426.36 available to the University from the two programs as of June 30, 1944.

These programs enabled the University to retain the services of most of its faculty and to utilize its plant facilities during the period when it experienced its lowest civilian enrollment. Through the extra funds made available by the programs, an opportunity was provided for paying the staff for overloads carried, and some increases in salary were made possible. Without these increases, there would have been considerably more sacrifice on the part of the staff, and the number of persons leaving the University for more remunerative employment would have been much larger.

There were other training programs, including pre-radar courses, in which some 150 students were trained in 1942-43.

A very effective and important phase of the training given through the extension service of the College of Engineering was the Engineering, Science, and Management War Training Program, in which approximately 3,000 persons were trained during the first year of the biennium and 2,000 during the second year. Seventy-five sections of thirty-three different courses, ranging from elementary physics and mathematics for high school teachers to postgraduate courses in aircraft engineering, were given. The program was operated in eleven cities of the State in order to spread the benefits of this adult education among as many citizens as possible. This work was conducted under the direction of Professor N. C. Ebaugh, Head of the Department of Mechanical Engineering.

GENERAL EXTENSION DIVISION AND AGRICULTURAL EXTENSION SERVICE

Both the General Extension Division and the Agricultural Extension Service have considerably enlarged their activities during the past two years. The General Extension Division has made a notable contribution to national and civilian defense. Approximately 2,000 men in the armed forces have been given correspondence courses through the University of Florida. The University, through this Division, follows the flag to where they are — to England, India, and literally to the ends of the earth. G. I. Joe has been offered 352 courses on the

college and high school level. Numerous other war activities have been carried on by this Division, of which two were conducted in cooperation with the Adjutant General of Florida. The first involved the registration of workers on the job at Camp Blanding for Selective Service, thereby saving 200,000 vitally important work hours; the second, the coordination of the State Defense Council's training program. Schools were conducted for 1,773 instructors to train the Citizens Defense Corps in fire, gas, and other defense subjects required by the Office of Civilian Defense. By January, 1943, the State Defense Council reported a total of 86,641 persons enrolled.

During the present war the Agricultural Extension Service has been confronted with the greatest responsibilities in its history. In times past its activities have been confined purely to education. Because of the gigantic and essential demand for adequate food supplies, the Congress called upon the Extension Service to undertake the administration of a program providing for the recruiting, transportation, and housing of labor to relieve the shortage brought about by the drafting of farm youth into the armed forces. Under agreement with the United States Department of Agriculture, allocations of funds were made by the Federal Government for this important work. Twenty-six labor camps were provided with a combined housing capacity of more than 13,000 workers, and 3,650 laborers were imported into the State. Of these 1,600 were Jamaicans, 1,200 were Bahamians, and 850 were prisoners of war. These workers have been supplied for the harvesting of citrus fruits, strawberries, potatoes, peanuts, sugar cane, and other Florida crops.

The Agricultural Extension Service has also carried on an Emergency War Food and Conservation Program, under which instructional courses have been given in every community and in rural areas of the State to teach modern methods of canning and preservation of foodstuffs. This was particularly helpful to thousands of families who planted Victory gardens.

During the biennium $275,000 was allocated by the United States Department of Agriculture to the Agricultural Extension Service programs, which were conducted with economy as well as efficiency. As a result, substantial balances were returned to the Government at the expiration of bugetary periods.

RESEARCH

More research has been done at the University during this biennium than at any other time in its history. Much of this research is related to the war effort, particularly in the fields of engineering and agriculture. Engineering research in behalf of the war effort has been subsidized by the Federal Government, and for this purpose approximately $112,000 has been received during the biennium. In addition, the 1941 session of the Florida Legislature appropriated $50,000 per annum for strengthening and developing the Engineering and Industrial Experiment Station. Funds from this appropriation were made available by the Budget Commission in the second year of the biennium. Most of the research being done for the Government is of a secret nature. However, rather outstanding results have been achieved, and these will create pride in all friends of the University when the facts are revealed. For the development of industries and the utilization of the State's products, researches are being carried on in the utilization of lime rock, waste products, particularly in the field of wood processing and canning, and minerals. The possibility of establishing a ceramic industry in Florida is being diligently explored.

There are two ways in which the State can enrich itself. It must either exploit the wealth created by others or create wealth for itself. Through the Engineering Industrial and Experiment Station the University has been given a fine opportunity for creative research which will upbuild the economic structure of the State of Florida.

Agricultural research has been applied vigorously in the fields of food production and nutrition since these were of major assistance to the war effort.

Not only in engineering and agriculture have there been increased activities in research but with the reduction of teaching loads, which have long been too heavy at the University, the scientific staff of the institution has been enabled to make larger contributions than have hitherto been possible.

STUDENTS AND FACULTY IN THE ARMED FORCES

Through the Alumni Office, a monthly bulletin, *The Fighting Gators*, has been sent to parents of servicemen for transmittal to them in the field. Included each month are news items giving accounts of the activities of alumni in the armed services and listing those reported wounded, taken prisoners of war, or lost by death. At the end of the biennium, it was estimated that there were some 8,000 alumni in the armed services, and actual reports had been received from more than 4,000 of these. About one-half were graduates. Among the graduates 76% were officers, 12% non-commissioned officers, and 12% privates and seamen. Of the non-graduates, 31% were officers, 35% non-commissioned officers, and 34% privates and seamen. One hundred and seventy-eight have been listed as killed in action, fifty-eight as missing, and thirty as prisoners of war.

It is a source of considerable satisfaction that the percentage of former students of the University of Florida who are serving in the war effort is as large as that of other institutions of higher learning. Furthermore, Floridians in all parts of the World War theatre have displayed unusual valor. In part, this is indicated by the fact that 235 have won some 553 decorations. Among the outstanding aces in the Air Corps are Lt. Don Fisher, '41; Captain Robert C. Miller, '40; Captain John F. Bolt, Jr., '41; Colonel John Alison, '35; Captain Herbert H. Long, '42; Lt. Louis A. Menard, Jr., '40; and Captain Sheldon Brinson, '38.

The contribution of the faculty in the war training, extension, and research programs has already been mentioned. As stated in my last biennial report, the University early adopted as a major policy the principle that positions made vacant by leaves of absence or resignations be filled only as emergency or necessity dictated. At the height of the training programs it was necessary to augment the faculty by recruiting additional members, some from beyond the borders of the State. In this way the staff has been kept flexible and has been adjusted to wartime demands. Annual leaves of absence were granted from the outset of the war emergency to members of the faculty and staff who could be spared for services in the war. Some members of the staff, occupying positions in critical fields, were requested to remain at the University rather than accept war service. One hundred and forty-eight members of the staff were granted leaves. Of this number 107 entered the armed services, including eighty-six from the instructional staff and thirty-one from the administrative and maintenance staff. Five accepted positions related to the war effort, two pursued work towards their doctorate, while twenty-four whose services were not re-

quired at the University were allowed leaves for personal reasons. Practically all of those on military leave have commissions in the various branches of the armed services.

CIVILIAN PROGRAM

As previously mentioned, during the biennium there was a decrease in the enrollment of civilian students which was rapidly accelerated by the induction of able-bodied boys down to the age of eighteen years. However, the Army trainees, together with the civilian students, substantially increased the enrollment until, during the second year of the biennium, there was a total enrollment of 4,717 students, the greatest number of any year in the history of the institution.

All colleges and departments of the University were kept open and no educational opportunity was denied civilian students. Student activities continued on an abbreviated scale for the most part. Student government, the Honor System, most of the fraternities, intramural athletics, and the usual activities were continued. Intercollegiate sports were discontinued in the year 1943-44. Some of the fraternities became dormant and their social activities were reduced to a minimum. During a part of the period under survey the University leased some of the fraternity houses and made them a part of the Residence Hall system for the use of civilian students. This adjustment was necessary because the Army trainees occupied the campus Residence Halls.

HONORARY DEGREES

At the 1944 Commencement of the University of Florida, honorary degrees were bestowed upon two outstanding alumni of the University and one scientist of great renown. The Honorary Degree of Doctor of Science was conferred upon Dr. Thomas Barbour, Director of the Harvard Museum of Comparative Zoology, Mr. Herman Gunter, Director of the Florida Geological Survey, and Mr. Eugene Terry Casler, Assistant Manager of the Florida Phosphate Division, International Minerals and Chemical Corporation.

BUILDINGS AND EQUIPMENT

The War Department paid the University 4% on the value of buildings which were used in the war training programs. These funds, added to those available from State appropriations, have enabled us to keep the plant in exceptionally good condition and even to improve some of the buildings. While the shortage of labor has, to some extent, hampered our maintenance service, the physical aspect of the University is, on the whole, better than could have been expected after two and a half years of war.

The Legislature, in its General Appropriation Bill of 1941, made provision for the erection of three new buildings at the University of Florida. These included: (1) an addition to the University Library, $150,000; (2) a College of Business Administration Building, $150,000; and (3) a Dairy Barn, $50,000. The sum of $80,000 was also appropriated for the rehabilitation of the Agricultural Experiment Station Building. Because of the shortage of materials and labor, it was impossible to erect any of the new buildings authorized. By constant and indefatigable efforts, the rehabilitation of the Agricultural Experiment Station Building, begun in the previous biennium, was sufficiently completed to permit occupancy. The renovated building is of fireproof construction

and has a new interior design built into the walls and under the roof of the old building. The available space has been increased approximately one-third. This building was very appropriately dedicated to the memory of Dr. Wilmon Newell, who in 1921 became Director of the Agricultural Experiment Station, as well as Director of the Agricultural Extension Service and Dean of the College of Agriculture. After a period of extraordinary service, Dr. Newell was taken from us by death in 1943.

GIFTS AND GRANTS

The University of Florida, in recent years, has been more fortunate in the recognition of its needs through gifts and grants from private sources than is usual with state-supported institutions. Most of the funds made available to us have come from the foundations. Totaling $130,761.11, they include:

General Education Board for Research in Nutrition, First Half of a $50,00 Grant	$ 25,000.00
General Education Board for the University Library, Second Half of a $40,000 Grant	20,000.00
General Education Board, Work Simplification Project	5,000.00
Alfred P. Sloan Foundation for Project in Applied Economics	28,475.00
State Board of Pharmacy for the Bureau of Professional Relations, School of Pharmacy	7,000.00
Florida Lime Rock Foundation for Experimentation with Lime Rock	15,000.00
Florida Crippled Children's Society for a Special Course in the Summer	425.00
Wallace and Tiernan, Incorporated, Fellowship for Investigations in Chlorination of Water	5,000.00
Florida Federation of Garden Clubs, Horticulture Fellowship	2,000.00
Renewals of the Duncan U. Fletcher and James D. Westcott Scholarships, and the Napoleon B. Broward Fellowship	3,000.00
Renewals of the Sears, Roebuck Agriculture Scholarships	2,305.00
Burpee Horticultural Fellowships for Latin American Students	4,300.00
Vocational Rehabilitation Scholarships	8,256.11
Miscellaneous Gifts, Ranging in Value from $50 to $1,000	5,000.00
	$130,761.11

P. K. YONGE LIBRARY OF FLORIDA HISTORY

Probably the most important acquisition ever received by the University from the standpoint of culture and the advancement of research was the P. K. Yonge Library of Florida History, presented by Mr. Julien C. Yonge, of Pensacola, as a memorial to his father, for many years a member and Chairman of the State Board of Control. No history of Florida, possessing the dignity and scholarship which is worthy of the State, has ever been written. Obstacles which have prevented this have included inaccessability of primary source materials. The Yonge collection consists of a veritable thesaurus of newspapers, maps, pamphlets, books, records, and other materials relating to Florida. It is the largest and most inclusive collection of its kind in existence. One of the conditions of this munificent gift was an agreement by the Board of Control that the collection would be housed as a separate unit in the new wing of the University Library when erected. It has been temporarily placed on one of the floors of the Law Library. The University is already actively engaged in securing increments to this collection, including photostats and microfilms of valuable Floridiana in the Library of Congress.

It is hoped that materials can be brought together rather quickly for an appropriate observance of Florida's Centennial, and that in the course of a few years a worthy history may be written. No state has a richer tradition and back ground than Florida, deep-rooted as it is in Spanish, French, and English cultures.

UNIVERSITY PUBLICATIONS

Aside from the researches in Agriculture, the University has always suffered from a lack of resources for the publication of the researches of its staff. It is manifestly wasteful to pay salaries to persons of creative ability and to buy expensive equipment without being able to publish the results of investigations and researches which have great public value. Furthermore, it is a decisive discouragement to those who are capable of making constructive contributions not to have their researches published.

As is evidenced by the fact that the University of Florida was one of the first universities in the South accorded a chapter of Sigma Xi, recognized as the hall mark of unusual accomplishments in the field of scientific research, the staff has turned out abundant results of research through the years, many of which have remained unpublished because of a false economy. Other institutions have often published the results of our scientific endeavors, thus enjoying in part the credit that should belong to the University, and profiting the states beyond our borders. During the biennium the Board of Control, with the support of the State Board of Education, made available from reserves a revolving fund of $10,000 for the publication of worth-while products of the University staff.

PATENT AND COPYRIGHT POLICY

Closely related to the stimulation of research through publication is the policy in an institution which governs patents and copyrights. Until recently the University did not have a well-conceived plan or policy relating to patents and copyrights. During the biennium regulations covering these matters, based upon studies and recommendations of the University Research Council, were finally established. The patent policy of the University is an epitome of that of the United States Government and similar to that of several other progressive universities. In the achievement of this important stimulus to research, the Governor of the State, the Attorney General, the Chairman of the Board, and others cooperated most effectively.

THE POSTWAR PERIOD

Amid the extraordinary demands made upon the facilities of the University in the war effort, the future has not been overlooked. Various committees have been actively engaged in making studies which will enable the University to move into the postwar period with the prospects of enlarged and more effective programs of service. Ten years ago the freshman and sophomore years of the University curriculum were reorganized in accord with a unified philosophy of education. This gave rise to the General College which is now being adopted in principle by numerous other institutions. The Upper Divisions of the University have been under careful study by postwar planning committees. These plans relate to agriculture, adult education, the social sciences, the biological sciences, the physical sciences, the humanities, including religious education, student health, and other vital matters.

RECOMMENDATIONS

In this report many needs of the University might be chronicled but I will confine myself to two general recommendations.

1. *Plant and Building Requirements.* In the postwar period there is every prospect that the University will be called upon to serve many more students than it has done in the past. The large increase in the population of the State, the suspension of educational opportunities for youth because of the war, the return of large numbers of veterans whose education will be provided for at Government expense, the advertising which Florida has received through the numerous young men who have been stationed in the State in connection with military, naval, or air training programs during the war period, as well as other factors, will provide an unprecedented enrollment. The plant is inadequate to handle 3,000 students. There will be a dire need for classroom space, as well as additional laboratory, library, and recreational facilities.

Therefore, I recommend that the Board of Control urge the Legislature to reappropriate at the earliest feasible moment the amounts for the three buildings provided in the 1941 Appropriation Bill and such additional buildings as may be possible.

2. *Increased Remuneration for Members of the Staff.* Within a decade and a half the State's resources, according to the Comptroller's reports, have practically quadrupled. The annual income from the State has increased from slightly over $33,000,000 in June, 1929, to approximately $118,000,000 in June, 1944. The State funds received by the University in this biennium were only slightly in excess of those available during the first biennium in which I came to the University some sixteen years ago. The 1928-29 State appropriation for the University was $749,152 while the 1943-44 appropriation was $970,425, of which $100,975 was an emergency appropriation to protect personnel in the armed forces and no part of which was used. Accordingly, the increase in State funds during the past sixteen years of my administration was only $120,298. Through the same years in which the State's ability to support the University increased nearly 300%, the actual support of the University by the State increased only about 13%.

The average or median salary at the University of Florida is considerably below that of the average or median salary of similar institutions in the United States. Consequently we suffer a continuous draft upon our human resources. As fast as we develop young men who have brains and ability, they are drained off into other parts of the country. Therefore, because the State is in the best financial condition of its history and is better able to support the University than ever before, I recommend that the Board of Control adopt a budgetary request that will enable the University to increase, as far as possible, the remuneration which may be paid to members of our staff who show merit.

CONCLUSION

As usual, at the close of the biennium, I feel deeply indebted to many persons and have no adequate words in which to express my gratitude. I have endeavored so to steer the University through these difficult war days as to preserve the essential elements of a great institution of learning, assist our nation in the most crucial war in history, and plan for a greater University to serve a greater Florida. In these efforts, I have had uncommon cooperation from my colleagues, both of the administrative staff and teaching faculty, as well as from the students. These two years have been peculiarly burdensome for members of the Board of Control, because of the almost continuous readjustments in staff and

budgetary requirements, not to mention the extraordinary problems arising of necessity from the war situation. I want to thank each of them for his patient consideration and for the constructive help which he has given. Beyond the Board of Control is the Board of Education which has, under the leadership of a Governor who, as an alumnus of the University of Florida, was peculiarly fitted to understand its needs, supported us in every possible manner. And beyond the Board are the people of the State of Florida whose University we are endeavoring to administer. To all of these and others I express my grateful appreciation.

Respectfully submitted,

JNO. J. TIGERT,

President, University of Florida

The University Record

of the

University of Florida

Schedule of Courses

Second Semester

1944-45

Vol. XL, Series 1, No. 2 February 1, 1945

Published monthly by the University of Florida, Gainesville, Florida
Entered in the post office in Gainesville, Florida, as second-class matter, under Act of Congress, August 24, 1912
Office of Publication, Gainesville, Florida

UNIVERSITY OF FLORIDA

SCHEDULE OF COURSES

Second Semester 1944-45

ABBREVIATIONS

Under the heading Dept. will be found the department name abbreviations adopted for official records.

The following abbreviations have been used to designate buildings:

AG - Agriculture Building

AU - University Auditorium

BA - Benton Annex

BN - Benton Hall

BU - Buckman Hall

CH - Chemistry Building

DL - Dairy Laboratory

EG - Engineering Building

EX - Experiment Station

HL - Hydraulic Laboratory

HT - Horticulture Building

LA - Language Hall

LW - Law Building

PE - Peabody Hall

PO - Poultry Laboratory

PH - Photo Laboratory

RA - Radio Station

SC - Science Hall

SE - Seagle Building

YN - Yonge Building

COMPREHENSIVE COURSES

C – 1

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
C	11	10	4	MTWF	2	PE	4	Staff	Man Social World
Student will register for one lecture section and one discussion section:									
C	1	1		MW	11	CH	AUD	Staff	Man Social World
C	12	11	4	MW	2	PE	101	Webb	Man Social World
C	12	12	4	TTh	9	PE	101	Maclachlan	Man Social World
C	12	13	4	TTh	11	PE	101	Webb	Man Social World
C	12	14	4	TTh	1	PE	101	Webb	Man Social World
C	12	15	4	TTh	2	PE	101	Carleton	Man Social World
C	1	2		TTh	10	CH	AUD	Staff	Man Social World
C	12	21	4	WF	8	PE	101	Thomason	Man Social World
C	12	22	4	WF	9	PE	101	Hanna	Man Social World
C	12	23	4	WF	10	PE	101	Carleton	Man Social World
C	12	24	4	TTh	1	PE	1	Hanna	Man Social World
C	12	25	4	TTh	2	PE	1	Laird	Man Social World

C – 2

C	22	1	3	TThS	8	BN	201	Gaddum	Man Physical World
C	22	2	3	TThS	9	BN	201	Mead	Man Physical World
C	22	3	3	MWF	10	BN	201	Gaddum	Man Physical World
C	22	4	3	MWF	9	BN	201	Gaddum	Man Physical World
C	22	5	3	MWF	9	BN	210	Mead	Man Physical World
C	22	6	3	MWF	10	BN	210	Mead	Man Physical World

DEPT	COURSE	SEC	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
Student will register for one discussion section and the laboratory section:									
C	31	10	4	MWF	10	LA	203	Clark	Readng Spekng Writng
C	31	20	4	MWF	11	LA	203	Walker	Readng Spekng Writng
C	31	100		T	8-10	LA	209	Mounts Murphree,A A	Readng Spekng Writng
Student will register for one lecture section, one discussion section, and one laboratory section:									
C	32	1		M	2	CH	AUD	Staff	Readng Spekng Writng
C	32	2		T	11	CH	AUD	Staff	Readng Spekng Writng
C	32	11	4	WF	9	LA	201	Constans	Readng Spekng Writng
C	32	12	4	WF	8	LA	201	Haines	Readng Spekng Writng
C	32	13	4	WF	11	LA	201	Murphree,A A	Readng Spekng Writng
C	32	14	4	WF	10	LA	201	Congleton	Readng Spekng Writng
C	32	21	4	ThS	10	LA	201	Farris	Readng Spekng Writng
C	32	22	4	ThS	8	LA	201	Mounts	Readng Spekng Writng
C	32	23	4	ThS	8	LA	203	Clark	Readng Spekng Writng
C	32	24	4	ThS	9	LA	201	Walker	Readng Spekng Writng
C	32	25	4	ThS	11	LA	201	Morris	Readng Spekng Writng
C	32	26	4	WF	8	LA	203	Tew	Readng Spekng Writng
C	32	102		M	1-3	LA	209	Morris Farris	Readng Spekng Writng
C	32	103		M	3-5	LA	209	Mounts Walker	Readng Spekng Writng
C	32	105		T	3-5	LA	209	Walker, Tew	Readng Spekng Writng
C	32	106		W	1-3	LA	209	Murphree,A A Tew	Readng Spekng Writng
C	32	107		W	3-5	LA	209	Mounts Walker	Readng Spekng Writng
C	32	108		Th	10-12	LA	209	Clark Murphree,A A	Readng Spekng Writng
C	32	109		Th	1-3	LA	209	Clark, Walker	Readng Spekng Writng
C	32	110		F	1-3	LA	209	Morris Constans	Readng Spekng Writng
CEh	33		4	MWF*	2	LA	203	Congleton	Effective Writing

*Laboratory period to arrange

C-41

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
C	41	1	3	MWF	9	LW	202	Wilson	Man and His Thinking
C	41	2	3	MWF	10	LW	202	Little	Man and His Thinking

C-42

C	42	1	3	MWF	8	PE	1	Davis	Fundamental Math
C	42	2	3	TThS	10	PE	1	Kokomoor	Fundamental Math
C	42	3	3	MWF	10	PE	1	Kokomoor	Fundamental Math
C	42	4	3	MWF	9	PE	1	Lang	Fundamental Math
C	42	5	3	TThS	11	PE	1	Pirenian	Fundamental Math

C – 421

C	421		3	MWF	2	PE	1	McInnis	Plane Trigonometry

C-5

Student will register for the lecture section, one discussion section, and one music hour:

C	5	1		TTh	9	CH	AUD	Staff	The Humanities
C	52	11	4	TTh	2	LA	212	Webb	The Humanities
C	52	12	4	TTh	10	LA	212	Glunt	The Humanities
C	52	13	4	TTh	11	LA	212	Hanna	The Humanities
C	52	14	4	WF	11	LA	212	Hanna	The Humanities
C	52	15	4	WF	2	LA	212	Haines	The Humanities
C	52	101		S	9		AUD	Murphree,C L	Music Hour
C	52	102		M	2		AUD	Murphree,C L	Music Hour
C	52	103		T	2		AUD	Murphree,C L	Music Hour

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
C	62	1	3	MWF	1	SC	101	Byers	Man Biological World
C	62	2	3	TThS	8	SC	101	Hobbs	Man Biological World
C	62	3	3	MWF	10	SC	101	Laessle	Man Biological World
C	62	4	3	TThS	11	SC	101	Hubbell	Man Biological World
C	62	5	3	MWF	9	SC	101	Carr	Man Biological World
C	62	6	3	MWF	1	SC	111	Laessle	Man Biological World
C	62	7	3	TThS	11	SC	111	Byers	Man Biological World

DEPARTMENTAL COURSES

AGRICULTURAL CHEMISTRY – ACY

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
ACY	126		4	MWF	9	CH	AUD	Muhleman	Agrictrl Chemistry
				Th	1-3	CH	AUD	Muhleman	
ACY	432		4	TTh	11	AG	208	Muhleman	Agrictrl Analysis
				WF	1-4	AG	101.1	Muhleman	

AGRICULTURAL ECONOMICS – AS

AS	306		3	MW	8	AG	102	Greenman	Farm Management
				Th	3-5	AG	102	Greenman	
AS	308		3	TTh	8	AG	302	Hamilton	Marketing
				W	3-5	AG	302	Hamilton	
AS	408		3	MWF	11	AG	302	Hamilton	Marketng Fruits & Veg
AS	410		3	MW	10	AG	302	Greenman	Agrictrl Statistics
				T	1-3	AG	302	Greenman	
AS	413		3	TTh	9	AG	302	Greenman	Agricultural Policy
				F	1	AG	302	Greenman	
AS	420		3	TTh	10	AG	308	Shealy and Hamilton	Marketng Livestock
				M	1-3	AC	308	Shealy and Hamilton	
AS	502		2	M	3-5	AG	302	Noble	Ag Economics Seminar
AS	506		*	To	arrange			Noble and Greenman	Research Farm Mgmt
AS	512		*	To	arrange			Noble and Hamilton	Research - Marketng Agrictrl Products

*Variable credit

AGRICULTURAL ENGINEERING - AG

DEPT	COURSE	SEC	CREDIT	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
AG	302		3	TTh M	9 3-5	AG LAB	210	Rogers, F	Farm Motors
AG	303		3	TTh F	11 1-3	AG LAB	210	Rogers, F	Farm Shop
AG	306		3	WF W	8 1	AG LAB	210	Rogers, F	Farm Machinery
AG	408		3	MW M	11 1-3	AG LAB	208	Rogers, F and Thornton	Soil & Water Conserv
AG	404		2	To	arrange	AG	106	Rogers, F	Ag Engrng Investgtns
AG	506		*	To	arrange	AG	106	Rogers, F	Problems

AGRONOMY - AY

AY	324		3	TTh S	10 8-10	AG AG	302 302	Senn Senn	Forage & Cover Crops
AY	400		3	M S	8 8-10	AG AG	302 302	Senn Senn	Ag Extension Methods
AY	422		3	MWF	9	AG	302	Senn	Plant Breeding
AY	426		*	To	arrange	AG	302	Senn	Prob Crop Productn
AY	492		1	F	8	AG	302	Senn	Agronomy Seminar

*Variable credit

ANIMAL PRODUCTION – AL

	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
	211		3	MW M	11 1-3	AG AG	104 104	Glasscock Glasscock	Prin Animal Husbandry
AL	312		4	MWF M	11 1-3	AG AG	102 102	Becker, Moore Becker, Moore	Feeds and Feeding
AL	322		2	TTh	8	AG	102	Willoughby	Animal Breeding
AL	411		2	MW	9	AG	102	Glasscock	Beef Production
AL	414		2	MW	8	AG	104	Willoughby	Sheep Production
AL	416		2	TTh	11	AG	102	Willoughby	World Meats
AL	418		2	MW	10	AG	102	Willoughby	Breed History
AL	420		3	TTh M	10 1-3	AG AG	209 209	Shealy and Noble	Marketng Livestock
AL	421		1	T	8	AG	104	Shealy and Staff	Seminar
AL	424		3	To	arrange			Willoughby	Animal Production
AL	501		*	To	arrange			Glasscock and Shealy	Adv Animal Productn
AL	503		3	To	arrange			Becker	Animal Nutrition
AL	505		2	To	arrange			Willoughby	Livestock Records
AL	508		2	To	arrange			Becker	Meth Animal Research
AL	509		#	To	arrange			Marshall	Prob Animal Nutritn
AL	511		#	To	arrange			Glasscock and Shealy	Prob Swine Productn
AL	513		#	To	arrange			Glasscock and Shealy	Prob Beef Productn
Al	554		*	To	arrange			Marshall	Vitamins

ARCHITECTURE – AE

AE	11A	**1	6	MTWF Th	1-5 1-3	PE PE	301 301	Hannaford Hannaford	Fund of Architecture
AE	11A	##2	3	MWF	1-4	PE	301	Hannaford	Fund of Architecture

* 2 to 5 credits

\# 1 to 4 credits

** For one year completion

For two year completion

ARCHITECTURE – AE CONTINUED

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
AE	21A		5	MTWFS	8-11	PE	302	Hannaford	Architectural Design
AE	21B		5	MTWFS	8-11	PE	201	Hannaford	Architectural Design
AE	31A		2	TTh	2-5	PE	302	Riter	Frhnd Drg Wtr Color
AE	31B		2	TTh	2-5	PE	201	Riter	Frhnd Drg Wtr Color
AE	41A		2	TTh 4 hrs	1 To arrange	PE Pe	302 306	Hannaford	History Architecture
AE	41B		2	TTh 4 hrs	1 To arrange	PE PE	306 306	Hannaford	History Architecture
AE	41C		2	TTh 4 hrs	1 To arrange	PE PE	306 306	Hannaford	Decorative Arts
AE	51A		3	MWF 3 hrs	3-5 To arrange	PE PE	302 302	Hannaford	Mtls Meths Constr
AE	51B		3	MWF 3 hrs	3-5 To arrange	PE PE	201 201	Fulton	Mchncl Equip Bldgs
AE	52A		3	MWF	3-5	PE	301	Hannaford	Mtls Meths Constr
AE	52D		2	MW	8-11	PE	302	Fulton	Wkng Draw Bldg Estmts
AE	61A		4	MWF Th 3 hrs	1-3 8-11 To arrange	PE PE PE	302 302 306	Hannaford	Strctrl Design Bldgs
AE	61B		4	MWF Th 3 hrs	1-3 8-11 To arrange	PE PE PE	201 201 306	Hannaford	Strctrl Design Bldgs
AE	62A		3	MWF Th	1-3 8-11	PE PE	302 302	Hannaford	Strctrl Design Bldgs
AE	71A		16	48 hrs	To arrange	PE	201	Hannaford and Staff	Thesis
		PROJECT		JUDGMENTS:					
				T	9-12	PE	300	Staff	
		PROJECT		LABORATORY (BOOK ROOM)					
				Daily Daily	8-12 1-5	PE PE	306 306	Staff Staff	

ASTRONOMY – ATY

ATY	301		3	MWF	8	PE	10	Mead, L V	Air Navigation
ATY	305		3	TThS	8	PE	10	Phipps	Marine Navigation

BACTERIOLOGY BCY

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG	ROOM	INSTRUCTOR	COURSE TITLE
BCY	301		4	TTh WF	9 1-3	SC SC	101 104	Carroll Carroll	Gen. Bacteriology
BCY	304		4	MW WF	11 3-5	SC SC	111 104	Carroll Carroll	Pathogenic Bactrlgy
BCY	306*		4	To	arrange			Carroll	Bacteriology of Foods
BCY	402		4	WF TTh	10 1-3	SC SC	104 104	Carroll Carroll	Dairy Bacteriology
BCY	412*		4	To	arrange			Carroll	Indstrl Bacteriology
BCY	500		#	To	arrange			Carroll	Adv Bacteriology
BCY	570		#	To	arrange			Carroll	Research Bacteriology

BIBLE BE

BE	303		2	MF	4	BU	205	Bristol	World's Great Religns
BE	304		2	To	arrange			Bristol	World's Great Religns
BE	306		2	TTh	10	BU	205	Bristol	How Understand Bible

BIOLOGY - BLY

BLY	102	1 11 12	3	TTh MW TTh	10 2-4 1-3	SC SC SC	101 10 10	Byers Byers Byers	Gen Animal Biology
BLY	209		4	TTh MW	9 1-4	SC SC	111 107	Sherman Sherman	Comp Vertbrt Anatomy
BLY	310		4	MW TTh	10 1-4	SC SC	111 107	Sherman Sherman	Mammln Anatmy Phslgy
BLY	416		4	To	arrange			Byers	Animal Parasitology
BLY	426		4	TTh S	10 8-12 & 2-5	SC SC	105 105	Rogers, J S Rogers, J S	Field Biology

*One or the other may be offered, depending on the demand.

#Variable credit

BOTANY - BTY

DEPT.	COURSE	SEC.	CR.ED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
BTY	304		3	MW TTh	8 2	SC SC	111 2	Cody	General Botany General Botany Lab
BTY	308		4	TTh MF	11 1-3	SC SC	1 1	Cody	Taxonomy Taxonomy Lab
BTY	401		4	TTh S	9 9-12	SC SC	1 1	Cody	Plant Ecology Plant Ecology Lab
BTY	432		4	WF TTh	10 3-5	SC SC	1 1	Cody	Plant Anatomy Plant Anatomy Lab
BTY	500		4	To	arrange			Cody	Advanced Botany
BTY	555		1	To	arrange			Cody	Botany Seminar
BTY	570		4	To	arrange			Cody	Research in Botany

BUSINESS EDUCATION - BEN

BEN	81		2	MTWTh	8	YN	306	Moorman	Intro Typewriting
BEN	91		2	MTWTh	1	YN	305	Moorman	Intro Shorthand
BEN	94*		4	MTWTh	To arrange	YN	305	Moorman	Stenography

CHEMICAL ENGINEERING - CG

CG	345		3	TThS	10	BN	209	Beisler	Indstrl Stoichiomtry
CG	449		3	TThS	11	BN	209	Beisler	Unit Processes
CG	458		2	W	1-5	EG	300	Tyner	Chem Eng Plant Design
CG	468		3	TThS	9	BN	209	Morgen	Chem Eng Thermodynmcs
CG	498		#					Staff	Honors Projects
CG	512		3	To	arrange			Beisler	Adv Chem Engineering.
CG	522		3	To	arrange				Sp Topics Chem Eng

* Each student to attend class three days a week

\# Variable credit

CHEMISTRY CY

DEPT	COURSE	SEC	CREDIT	DAYS	HOURS	BLDG	ROOM	INSTRUCTOR	COURSE TITLE
CY	101		4	MWF	1	CH	212	Jackson	General Chemistry
				Th	1-4	CH	130	Jackson	
CY	102	1	4	MWF	10	CH	AUD	Jackson	General Chemistry
		11		M	2-5	CH	130	Jackson	
		12		T	1-4	CH	130	Jackson	
CY	112		1	W	2-5	CH	130	Jackson	General Chemistry
CY	202		4	MW	9	CH	110	Black	Analytical Chemistry
				MW	1-4	CH	114	Heath	
CY	203		3	To arrange				Heath	Analytical Chemistry
CY	212		2	TTh	1-4	CH	114	Heath	Analytical Chemistry
CY	302	1	4	MWF	9	CH	212	Leigh	Organic Chemistry
		11		T	1-4	CH	230	Leigh	
		12		Th	1-4	CH	230	Leigh	
CY	312		1	T	1-4	CH	230	Leigh or Black	Organic Chemistry
CY	402		4	MWF	10	CH	110	Hawkins	Physical Chemistry
				F	2-5	CH	204	Hawkins	
CY	403		3	To arrange				Black	Water Analysis
CY	412		3	TTh	11	CH	110	Black, Hawkins	Advanced Chemistry
				W	2-5	CH	110		
CY	462		3	To arrange				Heath	Photographic Chem
CY	482		.5	To arrange				Pollard	Chemical Literature
CY	505		3	MWF	10	CH	112	Pollard	Org Nitrogen Compds
CY	517		3	TTh	9	CH	110	Pollard	Adv Organic Chem
				Lab To Arrange					
CY	522		3	TTh	10	CH	112	Hawkins	Adv Physical Chem
				Th	2-5	CH	204		
CY	570		#	To arrange				Heath	Rsrch Inorg Chem
CY	571		#	To arrange				Black	Rsrch Analyt Chem
CY	572		#	To arrange				Leigh and Pollard	Rsrch Org Chem
CY	573		#	To arrange				Hawkins	Rsrch Phys Chem
CY	574		#	To arrange				Leigh and Hawkins	Rsrch Naval Stores
CY	575		#	To arrange				Black	Rsrch Sanitary Chem

2 to 6 credits

CIVIL ENGINEERING – CL

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
CL	223		3	TTh T	10 2-5	HL HL	302 205	Reed Reed	Elemntry Surveying
CL	226		3	MWF	9	HL	302	Gager	Higher Surveying
CL	326		4	TTh TTh	1 2-5	HL HL	302 301	Keith Keith	Theory of Structures
CL	327		4	MWF Th	10 1-4	HL HL	302 101	Gager Gager	Hydraulics
CL	332		3	TTh S	9 9-12	HL HL	201 205	Reed Reed	Highway Engineering
CL	423		3	W W	1 2-6	EG BA	212 105	Keith Keith	Materials Lab
CL	426		3	MF M	1 2-5	HL HL	302 304	Gager Gager	Water and Sewerage
CL	436		3	W TTh	9 2-5	HL HL	301 301	Keith Keith	Structural Engrng
CL	442		3	TThS	9	HL	302	Gager	Publc Health Engrng
CL	522		3	To	arrange			Keith	Adv Steel Structures
CL	524		3	To	arrange			Keith	Adv Concrete Structrs
CL	528		3	To	arrange			Emerson	Adv Sanitary Engrng
CL	529		3	To	arrange			Emerson	Adv Santry Eng Design

DAIRYING – DY

DY	318		2	TTh	4-6	DL	101	Fouts	Judging Dairy Prods
DY	412		3	TTh M	11 3-5	AG AG	104 102	Arnold	Mild Production
DY	416		5	TTh MW	11 1-4	DL DL	101 101	Fouts	Dairy Technology
DY	418		*	To	arrange	DL		Fouts	Approved Dairy Pract
DY	420		#	To	arrange	DL		Fouts	Probs Dairy Technlgy
DY	520		3	To	arrange	DL		Fouts	Adv Dairy Technology
DY	521		#	To	arrange	DL		Fouts	Probs Mlk & Mlk Prods
DY	523		#	To	arrange			Becker	Probs Dairy Productn

* 1 to 3 credits

\# 1 to 4 credits

ECONOMICS – ES
BUSINESS ADMINISTRATION – BS

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
CES	13	1	5	MWF	10	PE	205	Eldridge	Econ Foun Modrn Life
		11		TTh	11	PE	206	Dietz	
		12		TTh	1	PE	206	Dietz	
CBS	141		3	TThS	8	LW	204	Joubert	Elemntry Accounting
CBS	142		3	MWF	9	LA	204	Joubert	Elemntry Accounting
CES	15		4	TThS	10	LA	10	Anderson	Elemntry Statistics
				M	3-5	LA	10		
BS	312		3	MWF	1	LW	204	Beights	Accounting Prins
ES	321		3	MWF	10	PE	206	Dolbeare	Fncl Orgnztn Society
ES	322		3	MWF	9	PE	206	Dolbeare	Fncl Orgnztn Society
ES	327		3	MWF	8	PE	206	Bigham	Public Finance
ES	335		3	MWF	9	PE	209	Chace	Econs of Marketing
ES	351		3	TThS	8	PE	206	Bigham	Elems Transportatn
ES	352		3	TThS	10	PE	206	Bigham	Prins Probs Transptn
BS	362		3	MWF	11	PE	206	Chace	Property Insurance
ES	373		3	TThS	11	PE	208	Chace	Labor Economics
BS	402		3	MWF	1	LW	202	Slagle	Business Law
ES	408		3	MWF	11	PE	112	Eldridge	Econ Prins & Probs
BS	412		3	MWF	10	LW	204	Beights	Auditing
BS	414		3	MWF	12	LW	204	Beights	Income Tax Procedure
BS	418		3	MWF	9	LW	204	Beights	Advanced Accounting
BS	422		3	TThS	9	PE	206	Dolbeare	Investments
BS	428		3	TThS	10	PE	208	Dietz	Prins Probs Corp Fnce
ES	446		3	MWF	8	PE	209	Joubert	Consumptn of Wealth
ES	463		3	MWF	2	LA	204	Eutsler	Probs Social Securty
BS	464		3	TThS	9	PE	209	Chace	Real Estate Prin Prob
ES	470		3	TThS	11	LA	10	Anderson	Business Forecasting
ES	485		3	MWF	10	LA	10	Anderson	Intrntl Econ Relatns
ES	506		3	MWF	2	PE	112	Eldridge	Devlmt Econ Thought

EDUCATION – EN

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
CEN	13		3	MWF	10	YN	134	Simmons	Intro to Education
EN	305		3	TThS	10	YN	140	Barry	Dev & Org of Educ
EN	386		3	TThS	9	YN	218	Crago	Educatnl Psychology
EN	398		3	MWF	11	YN	134	Williams,W R	Sec Schl Cur & Instr
EN	402		3	To	arrange	YN	132	Simmons	Administratn Pract
EN	403		3	MWF	9	YN	134	Norman	Prin & Philos Educ
EN	408		3	F	7-9:30 P M	YN	132	Leps	High Schl Admin
EN	410		3	Daily	9-10 or 2-4	YN	150	Garris	Sup Tchg Voc Agric
EN	412		2	MWF	11	YN	150	Garris	Spec Meth Voc Agric
EN	421*		3	To	arrange	YN	134	Crago	Student Teaching
EN	422*		3	To	arrange	YN	134	Crago	Student Teaching
EN	472		3	To	arrange	YN	SHOP	Strickland	Meth Org Ind Arts
EN	502		3	M	7-9:30 P M	YN	140	Barry	Elem Sch Curriculum
EN	520		3	Th	7-9:30 P M	YN	132	Lewis	High Sch Curriculum
EN	528		3	W	7-9:30 P M	YN	132	Williams,W R	Suprvsn Sec School
EN	566		3	S	9-11:30 A M	YN	150	Garris	Probs Agric Educ
EN	592		3	F	7-9:30 P M	YN	132	Leps	Publc Schl Admin

ELECTRICAL ENGINEERING – EL

EL	342		3	MWF	9	EG	209	Smith, E F	Elems Elect Engrng
EL	344		3	MWF	8	EG	209	Smith, E F	Prob Dir & Alt Curr
EL	346		4	TThS W	9 2-5	EG SE	209 11th floor	Smith, E F	Elect Communicatns
EL	350		1	F	2-5	BN	106	Smith, E F	Dynamo Laboratory
EL	449		5	MWF	9	EG	212	Moreno	Thry Elec Circuits
EL	454		1	Th	6-9 P M	RA		Moreno	Radio Statn Operatn

*Classes in EN 421 and EN 422 will meet the first Wednesday of the semester in YN 134, at 4 P M.

ENGLISH - EH

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
CEH	36		3	MWF	9	LA	210	Haines	Literary Mastrs Amer
CEH	38		3	MWF	11	LA	210	Robertson	Literary Mastrs Eng
CEH	314		3	MWF	10	LA	210	Murphree,A A	Mastrpcs World Lit
EH	302		3	TThS	10	LA	210	Robertson	Shakespeare
EH	328		2	TTh	8	LA	314	Farris	Imaginative Writing
EH	355		3	MWF	1	LA	210	Clark	Business Writing
EH	365		3	MWF	2	LA	210	Mounts	Contemp Lit: Fiction
EH	402		3	MWF	10	LA	314	Farris	American Literature
EH	409		3	To	arrange			Morris	Chaucer
EH	434		3	To	arrange			Congleton	Eng Lit 18th Century
EH	502		3	MWF	10	LA	314	Farris	American Literature
EH	509		3	To	arrange			Morris	Chaucer
EH	529		1	To	arrange			Haines	Graduate Seminar
EH	530		*	To	arrange			Staff	Individual Work
EH	534		3	To	arrange			Congleton	Eng Lit 18th Century

ENTOMOLOGY - EY

EY	314		4	MW S	10 8-12	AG AG	306 306	Hixson	Prins Econ Entomology
EY	420		3	MW F	8 3-5	AG AG	308 308	Hixson	Med & Vet Entomology
EY	441		3	MW M	9 3-5	AG AG	308 308	Creighton	Plnt Quar Insp & Cont
EY	450		3	MW T	10 3-5	AG AG	308 308	Creighton	Sanitation
EY	504		3	To	arrange	AG	308	Creighton and Tissot	Probs in Entomology
EY	516		3	To	arrange	AG	308	Tissot	Insect Ecology

* Variable credit

FORESTRY FY

DEPT	COURSE	SEC	CRED	DAYS	HOURS	BLDG	ROOM	INSTRUCTOR	COURSE TITLE
FY	309		4	TTh S	8 8-12	HT HT	407 407	Newins Newins	Wood Technology
FY	310		3	MW T	8 1-5	HT HT	413 413	Westveld	Reforestation
FY	318		3	MWF	9	HT	413	Newins	Forest Utilization
FY	320		3	Th WF	11 1-5	HT HT	413 413	Westveld Westveld	Silviculture
FY	431		#	To	arrange			Staff	Forest Probs Seminar

FRENCH – FH

CFH	34		3	MWF	11	BU	101	Atkin	First Year French
FH	202		3	TThS	10	BU	101	Atkin	Second Year French
FH	205		6	MTWThFS	8	BU	205	Brunet	Second Year French
FH	308		3	MWF	10	BU	101	Atkin	Mastrpcs French Lit
FH	430		*	To	arrange			Atkin and Brunet	Individual Work
FH	530		*	To	arrange			Atkin and Brunet	Individual Work

GEOGRAPHY – GPY

GPY	330		3	TTh T	9 2-4	SC SC	106 106	Hubbell Hubbell	Maps. Charts Graphs

GERMAN – GN

CGN	34	1	3	MWF	9	BU	305	Jones	First Year German
CGN	34	2	3	TThS	9	BU	305	Hauptmann	First Year German
CGN	35		6	MTWThFS	8	BU	305	Jones	First Year German
GN	205		6	MTWThFS	10	BU	305	Jones	Second Year German
GN	430		*	To	arrange	BU	303	Jones	Individual Work

2 to 5 credits

* Variable credit

GREEK – GK

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
GK	33		3	TThS	11	BU	205	Brunet	First Year Greek

HEALTH AND PHYSICAL EDUCATION – HPL

HPL	132		3	MW Th	1 1-4	BB	Court	Lieb & Staff	Theory & Practice II
HPL	232		3	MW T	2 1-4	BB	Court	Lieb & Staff	Theory & Practice IV
HPL	387		3	Th	7-9:30 P M	YN	138	Strickland and Salt	Health Education
HPL	534		3	To	arrange	YN	GYM	Stevens and Salt	Probs in Phys Educ

HISTORY – HY

CHY	13		4	MTWF	8	PE	112	Leake	History Modrn World
HY	304		3	TThS	10	PE	112	Leake	Amer Hist 1876-1945
HY	306		3	TThS	11	PE	112	Payne	Eng Hist 1485-1689
HY	310		3	MWF	9	PE	112	Leake	The Napoleonic Era
HY	314		3	MWF	11	LA	10	Glunt	Europe Dur Mid Ages
HY	318		3	TThS	8	LA	10	Glunt	Lat Amer Hist 1900-1945
HY	402		3	MWF	10	PE	112	Payne	Ancient Civilizatns
HY	404		3	TThS	9	PE	208	Payne	Hist Eur 1714-1789
HY	510		3	To	arrange			Leake	Seminar Amer Hist

HORTICULTURE – HE

DEPT	COURSE	SEC	CRED	DAYS	HOURS	BLDG	ROOM	INSTRUCTOR	COURSE TITLE
HE	310		3	TTh	9	Greenhouse		Watkins	Plant Pruning
				T	1-3	Greenhouse		Watkins	
HE	312		3	TTh	11	AG	209	Abbott	Vegetable Gardening
				T	3-5	Greenhouse		Abbott	
HE	314		3	MWF	9	AG	209	Abbott	Prins Fruit Prodctn
HE	316		3	TTh	8	AG	209	Abbott	Citrus Culture
				W	3-5	AG	209		
HE	412		3	MW	8	AG	209	Wolfe	Deciduous Fruits
				F	3-5	AG	209	Wolfe	
HE	428		3	To	arrange	Greenhouse		Watkins	Commercl Floricultr
HE	514		3	To	arrange	AG	209	Abbott	Adv Citriculture
HE	570		*	To	arrange	AG	207	Wolfe	Research Horticultr

INDUSTRIAL ARTS EDUCATION – IN

IN	112		2	To	arrange	YN	SHOP	Strickland	Mechanical Drawing
IN	212		2	To	arrange	YN	SHOP	Strickland	General Shop
IN	306		3	To	arrange	YN	SHOP	Strickland	General Metal Shop
IN	412		3	To	arrange	YN	SHOP	Strickland	Gen Machn Shop & Metal Work

INDUSTRIAL ENGINEERING – IG

IG	365		3	TThS	9	EG	211	Yeaton	Eng Mechncs Statics
IG	366		3	MWF	10	EG	211	Eshleman	Eng Mechncs Dynamics
IG	367		3	TThS	11	EG	211	Yeaton	Strength of Materials
IG	460		3	MWF	10	EG	213	Yeaton	Eng Economic Analysis
IG	470		4	MWF	11	EG	212	Eshleman	Plnt Locatn & Layout
				W	2-5	EG	304	Eshleman	
IG	472		2	TTh	10	EG	213	Yeaton	Human Engineering

* Variable credit

JOURNALISM - JM

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
JM	214		3	MWF	10	LW	112	Skaggs	Intro to Journalism
JM	216		3	MWF	9	LW	201	Lowry	Prins of Journalism
JM	301		4	MW TTh	11 2-5	LW LW	201 201	Lowry Lowry	News Writng & Editng
JM	302		4	MW TTh	11 2-5	LW LW	201 201	Lowry Lowry	News Writng & Editng
JM	314		3	TThS	9	LW	201	Lowry	Mag Writng & Editng
JM	318		3	TThS	10	LW	201	Lowry	Newspaper Managemnt
JM	404		2	MW	2	LW	201	Lowry	Newspr & Mag Illustr
JM	406		2	TTh	9	LW	112	Skaggs	Radio Writing
JM	408		3	TThS	11	LW	112	Skaggs	Propaganda
JM	410		2	MW	3	LW	112	Skaggs	World Journalism
JM	412		3	MWF	9	LW	112	Skaggs	Cont Jrnlstc Thot
JM	504		3	To	arrange			Lowry	Spec Stud Nwspr Prod
JM	506		3	To	arrange			Skaggs	Spec Stud Publc Opin

LATIN - LN

LN	34		3	TThS	9	BU	205	Brunet	First Year Latin
LN	202		3	MWF	3	BU	205	Brunet	Second Year Latin

LAW – LW

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
LW	302		5	MTWThF	9	LW	111	Trusler	Equity Jurisprudence
LW	304		3	MWF	10	LW	111	TeSelle	Contracts II
LW	306		1	S	10	LW	111	Day	Marriage & Divorce
LW	308		3	MWF	8	LW	111	Crandall	Common Law Pleading
LW	312		2	TTh	10	LW	111	Day	Property II
LW	401		4	MTThF	9	LW	105	Slagle	U S Const Law
LW	402		4	MTThF	11	LW	105	TeSelle	Evidence
LW	408		2	TTh	2	LW LIBRARY		Pridgen	Leg Eth & Biblio
LW	410		3	MWF	10	LW	105	Pridgen	Property IV
LW	413		3	TThS	8	LW	105	Crandall	Fla Civ Practice
LW	415		2	WS	9	LW	105	Day	Abstracts
LW	416		2	WS	11	LW	105	TeSelle	Insurance
LW	502		2	TTh	10	LW	105	Trusler	Damages
LW	506		3	MWF	8	LW	105	Day	Negotiable Instrmnts
LW	508		3	TThF	11	LW	111	Slagle	Conflict of Laws

MATHEMATICS – MS

CMS	23		4	MWFS	9	PE	2	Dostal	Basic Mathematics
CMS	24	1	4	MWFS	8	PE	2	Dostal	Basic Mathematics
CMS	24	3	4	TWThF	1	PE	102	McInnis	Basic Mathematics
CMS	24	4	4	MTWTh	3	PE	2	Davis	Basic Mathematics
CMS	24	5	4	MWThF	2	PE	102	Simpson	Basic Mathematics
CMS	24	6	4	MWThF	2	PE	2	Phipps	Basic Mathematics
MS	310		3	To arrange				Phipps	Statistical Methods
MS	312		3	MWF	11	PE	102	Pirenian	Adv College Algebra
MS	353		4	MWFS	8	PE	102	Lang	Differential Calculus
MS	354	1	4	MWFS	9	PE	102	McInnis	Integral Calculus
MS	354	2	4	MWFS	8	PE	11	Pirenian	Integral Calculus
MS	421		3	TThS	11	PE	2	Dostal	Highr Math Eng & Phys
MS	430		*	To arrange				Lang	Individual Work
MS	530		*	To arrange				Phipps	Individual Work
MS	568		3	To arrange				Kokomoor	Hist Elementry Math

*Variable credit

MECHANICAL ENGINEERING - ML

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
ML	181		2	T	1	PE	205	Frash	Engineering Drawing
ML	182		2	W	1	EG	202	Frash	Descriptive Geom

Each student registering for ML 181 and ML 182 must select two two-hour drawing periods per week by conference with instructor.

ML	282		3	TTh M	10 1-4	EG EG	202 304	Frash	Kinematics
ML	384		2	TTh Th	9 3-5	EG EG	213 102	Eshleman	Metallography
ML	386		3	MWF	11	EG	211	Ebaugh	Power Engineering
ML	388		1	M M	1 2-5	EG EG	211 103	Thompson	Mechanical Lab
ML	481		3	TThS	9	EG	202	Thompson	Intrnl Combstn Engns
ML	482		3	MWF	9	EG	213	Ebaugh	Refgrtn Air Condtng
ML	483		1	M M	1 2-5	EG EG	212 103	Thompson	Mechanical Lab
ML	484		1	W W	1 2-5	EG EG	213 103	Ebaugh	Mechanical Lab
ML	490		3	T	1-6	BA	103	Tiffin	Manufctrng Operatns

MILITARY SCIENCE - MY

MY	102	1	2	M	3-5	Motor	Park	Joyner	1st Year Infantry
MY	102	2	2	T	3-5	Motor	Park	Joyner	1st Year Infantry
MY	102	3	2	W	3-5	Motor	Park	Joyner	1st Year Infantry
MY	102	4	2	Th	1-3	Motor	Park	Joyner	1st Year Infantry
MY	201	2	2	F	3-5	Motor	Park	Humphries	2nd Year Infantry

IN ADDITION TO THE THEORY SECTIONS AS LISTED ABOVE, EACH STUDENT MUST BE ASSIGNED TO THE FOLLOWING DRILL SECTION

MY	140			Th	4	Drill	Field		1st Bn Infantry

FIRST AND SECOND YEAR MILITARY STUDENTS MUST ATTEND AN ADDITIONAL HOUR AT 5 P M ON THURSDAY WHEN ORDERED BY THE P.M.S.&T.

MUSIC - MSC

MSC	102		2	M	7		AUD	Brown	Orchestra
MSC	302		2	To	arrange		AUD	Debruyn	Choral Directing
MSC	310		2	WF	2		AUD	Murphree,C L	Music Appreciation

PAINTING – PG

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
PG	11A	*1	6	MTWF Th	1-5 1-4	PE PE	109 109	Riter	Fndmtls Pictrl Art
PG	11A	**2	3	MWF	1-4	PE	109	Riter	Fndmtls Pictrl Art
PG	21A		3	MWF 3 hrs	8-10 To arrange	PE PE	300 300	Riter	Pictrl Compositn
PG	21B		5	Daily 3 hrs MWF	8-10 To arrange 8-10	PE PE	300 300	Riter	Pictrl Compositn
PG	22A		4	12 hrs	To arrange	PE	109	Riter	Commercial Design
PG	31A		6	MWF TThS MWF	10-12 8-10 10-12	PE PE	300 300	Riter	Freehand Drawing
PG	31B		4	Daily MWF	10-12 10-12	PE	300	Riter	Freehand Drawing
PG	32A		4	12 hrs	To arrange	PE	300	Riter	Freehand Drawing
PG	32B		4	12 hrs	To arrange	PE	300	Riter	Freehand Drawing
PG	41A		2	MW 4 hrs	5 To arrange	PE PE	306 306	Riter	Hist of Painting
PG	51A		5	MTWThF MWF	2-5 2-5	PE	300	Riter	Oil Painting
PG	51B		5	MTWThF MWF	2-5 2-5	PE	300	Riter	Oil Painting
PG	52A		4	12 hrs	To arrange	PE	300	Riter	Oil Painting
PG	52B		3	TTh 3 hrs	2-5 To arrange	PE PE	300 300	Riter	Water Color
PG	61A		16	48 hrs	To arrange	PE	300	Staff	Thesis
		PROJECT JUDGMENTS:							
				T	9-12	PE	300	Staff	
		PROJECT LABORATORY (BOOK ROOM)							
				Daily	8-12	PE	306	Staff	
				Daily	1-5	PE	306	Staff	

* For one year completion

**For two year completion

PHARMACOGNOSY – PGY

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
PGY	222		3	MWF	11	CH	316	Johnson, C H	Practcl Pharmacognsy
				W	1-4	CH	316	Johnson, C H	
PGY	342		2	To	arrange			Johnson, C H	Microscopy of Drugs
PGY	552		2	To	arrange			Johnson, C H	Spec Probs Pharmcgnsy

PHARMACOLOGY – PLY

PLY	262		2	TTh	10-12	CH	316	Staff	Applied Physiology
PLY	362		4	MW	9	CH	400	Staff	Pharmcgl Standrdztn
				F	1-5	CH	400		
PLY	452		3	MWF	10	CH	316	Staff	Prins Biologicals
PLY	456		3	MW	9	CH	316	Foote	New Remedies
				F	8-10	CH	316	Foote	
PLY	517		3	To	arrange	CH	400	Johnson, C H	Clinical Methods
PLY	552		4	To	arrange			Staff	Spec Probs Pharmclgy

PHARMACY – PHY

PHY	224		3	TTh	11	CH	402	Husa	Galenical Pharmacy
				Th	1-4	CH	306	Husa	
PHY	353		5	MWF	11	CH	402	Foote	Org & Anlyt Pharcy
				TW	1-4	CH	306	Staff	
PHY	362		4	TTh	10	CH	402	Husa	Prscrptns & Dispnsng
				MTh	1-4	CH	306	Husa	
PHY	372		4	MWFS	10	CH	402	Husa	Commercial Pharmacy
PHY	402		2	TTh	11	CH	112	Johnson, C H	Pharmactl Arith
PHY	432		3	T	9	CH	402	Foote	Adv Drug Analysis
				TW	1-4	CH	306	Staff	
PHY	541		2	To	arrange			Husa	Manufacturng Pharmcy

PHILOSOPHY PPY

PPY	404		3	MWF	11	PE	209	Enwall	Philos of Nature
PPY	410		3	TThS	11	PE	209	Enwall	Modern Philosophy
PPY	504		3	TThS	11	PE	209	Enwall	Adv Hist Philosophy

PHYSICAL EDUCATION

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
PFP		1		MWF	9	Field		Lieb	Physical Fitness
PFP		2		MWF	10	Field		Lieb	Physical Fitness
PFP		3		MWF	11	Field		Beard	Physical Fitness
PFP		4		TThS	9	Field		Pitman	Physical Fitness
PFP		5		TThS	10	Field		Cherry	Physical Fitness

PHYSICS – PS

PS	101		3	TThS	10	BN	205	Bless	General Physics
PS	102		3	MWF Th	9 11	BN BN	205 203	Bless Perry, Swanson	General Physics
PS	206	1	3	MWF Th	10 11	BN BN	205 203	Perry Perry, Swanson	Gen Physics (Enginrs)
PS	206	2	3	MWF Th	11 11	BN BN	205 203	Williamson Perry, Swanson	Gen Physics (Enginrs)
PS	207		1	F	2-5	BN	306	Bless	Lab for PS 101
PS	208	1	1	[illegible]	2-5	BN	306	Perry	Lab for PS 102 & 206
PS	208	2	1	T	2-5	BN	306	Perry	Lab for PS 102 & 206
PS	208	3	1	W	2-5	BN	306	Perry	Lab for PS 102 & 206
PS	221		2	To	arrange			Bless	Recnt Advances Phys
PS	292		3	MWF	9	BN	209	Perry	Meteorology
PS	309		4	TThS T	9 2-5 or arrange	BN BN	205 304	Swanson Swanson	Light

PLANT PATHOLOGY – PT

PT	332		3	T TTh	10 1-3	HT HT	407 407	Weber Weber	Vegetable Diseases
PT	423		3	Th TTh	10 3-5	HT HT	407 407	Weber Weber	Fruit Diseases
PT	434		3	MWF	3-5	HT	407	Weber	Mycology
PT	523		*	To	arrange	HT	407	Weber	Adv Plant Pathology
PT	570		*	To	arrange	HT	407	Weber	Resrch Plnt Pathology

* Variable credit

POLITICAL SCIENCE - PCL

DEPT	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
CPL	13		4	MW TTh	3 9	LA LA	307 307	Laird	Poltl Foun Mod Life
PCL	310		3	MWF	1	PE	112	Carleton	Internatnl Relatns
PCL	314		3	MWF	2	PE	208	Payne	Amer Govt & Politics
PCL	402		3	TThS	9	PE	112	Leake	Amer Const Law
PCL	406		3	TThS	11	LA	307	Laird	Hist Politicl Theory
PCL	412		3	MWF	9	LA	307	Laird	Public Administratn
PCL	514		3	To	arrange			Laird	Seminar Political Sci

PORTUGUESE - PE

PE	34		3	TThS	9	BU	101	Atkin	1st Year Portuguese

POULTRY HUSBANDRY - PY

PY	312		3	MW T	9 1-3	PO PO		Moore, O K	Adv Incubatn Broodng
PY	416		3	TTh M	9 3-5	PO		Mehrhof	Poultry Management
PY	417		3	TTh W	11 1-3	PO		Moore, O K	Marktng Poultry Prods
PY	430		*	To	arrange	PO		Mehrhof	Probs Poultry Prodctn
PY	531		3	To	arrange	PO		Mehrhof	Adv Poultry Managmnt
PY	570		*	To	arrange	PO		Mehrhof	Poultry Resrch Probs

* 1 to 4 credits

PSYCHOLOGY – PSY

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
PSY	201	1	3	MWF	11	PE	114		General Psychology
PSY	201	2	3	MWF	2	PE	114	Williams, O	General Psychology
PSY	303		3	TTh	9	PE	114	Williams, O	Physiological Psych
				Lab	To arrange	PE	114	Williams, O	
PSY	305		3	MWF	10	PE	114	Williams, O	Social Psychology
PSY	310		3	MWF	9	PE	114	Hinckley	Abnormal Psychology
PSY	401		3	To	arrange	PE	114		Read in Exper Psych
PSY	406		3	To	arrange	PE	114	Williams, O	Psychological Tests
PSY	409		3	To	arrange	PE	114	Hinckley	Human Motivation
PSY	430		*	To	arrange	PE	114	Hinckley	Individual Work
PSY	501		3	To	arrange	PE	114		Read in Exper Psych
PSY	506		3	To	arrange	PE	114	Williams, O	Psychological Tests
PSY	509		3	To	arrange	PE	114	Hinckley	Human Motivation
PSY	530		*	To	arrange	PE	114	Hinckley	Individual Work

SOCIOLOGY – SY

CSY	13		4	MTWTh	11	PE	4	Maclachlan	Soc Foun Modrn Life
SY	322		3	MWF	1	PE	4	Thomason	Child in Amer Soc
SY	337		3	TTh	9	PE	4	Thomason	Cultural Anthropolgy
				1 hr	To arrange				
SY	424		3	MWF	9	PE	4	Thomason	Criminology
SY	441		3	To	arrange			Maclachlan	Social Theory
SY	490		3	MWF	10	PE	4	Maclachlan	The South Today
SY	560		3	To	arrange			Maclachlan and Staff	Special Topics

SOCIAL STUDIES SCL

SCL	302		3	MWF	4	YN	140	Barry	Childrn's Soc Stud

* Variable credit

SOILS - SLS

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
SLS	302	1	3	MW	10	AG	208	Thornton	Soil Fertility
		11		W	1-3	AG	202	Thornton	
SLS	402		3	TThS	11	AG	302	Thornton	Adv Soil Fertility
SLS	408		3	MW	11	AG	208	Thornton	Soil Conservation
				M	1-3	AG	208	Thornton	
SLS	420		*	To	arrange	AG	206	Thornton	Special Problems
SLS	502		3	Th	10	AG	208	Smith, F B	Soil Chemistry
				ThF	1-3	AG	204	Smith, F B	
SLS	570		*	To	arrange	AG	206	Smith, F B	Research in Soils

SPANISH - SH

CSH	34		3	MWF	9	BU	301	Trujillo	First Year Spanish
CSH	35		6	MTWThFS	10	BU	301	Hauptmann	First Year Spanish
SH	202		3	MWF	11	BU	301	Hauptmann	Second Year Spanish
SH	430		*	To	arrange	BU	302	Hauptmann	Individual Work

SPEECH - SCH

CSC	33	1	3	MWF	9	PE	205	Hale	Effective Speaking
CSC	33	2	3	MWF	11	PE	205	Tew	Effective Speaking
CSC	33	3	3	TThS	10	PE	205	Constans	Effective Speaking
SCH	301		3	MWF	10	PE	209	Constans	Adv Public Speaking
SCH	308		3	TThS	9	PE	205	Hale	Interpretatn of Lit
SCH	315		3	TThS	10	PE	209	Hale	Applied Phonetics
SCH	404		3	TThS	11	PE	205	Tew	Dramatic Production

VETERINARY SCIENCE - VY

VY	401		2	MW	10	AG	209	Shealy	Livestock Diseases
VY	402		2	MW	11	AG	209	Emmel	Poultry Diseases
VY	543		*	To	arrange	AG	102	Emmel	Probs Animl Pathlgy

* Variable credit

HOUR	MONDAY		TUESDAY		WEDNESDAY		THURSDAY		FRIDAY		SATURDAY	
	Course & Section	Room Number	Course & Section	Room Number	Course & Section	Room Number	Course & Section	Room Number	Course & Section	Room Number	Course & Section	Room Number
8:00												
9:00												
10:00												
11:00												
12:00												
1:00												
2:00												
3:00												
4:00												
5:00												

The University Record

of the

University of Florida

SPECIAL SUMMER TERM
FOR IN-SERVICE TEACHERS
April 30 - June 9, 1945
COEDUCATIONAL

Vol. XL, Series 1, No. 2, Extra No. 1, February 15, 1945

Published monthly by the University of Florida, Gainesville, Florida
Entered in the post office in Gainesville, Florida, as second-class matter
under Act of Congress, August 24, 1912
Office of Publication, Gainesville, Florida

UNIVERSITY OF FLORIDA

SPECIAL SUMMER TERM FOR IN-SERVICE TEACHERS - APRIL 30 - JUNE 9, 1945

COEDUCATIONAL

To make it possible for those teachers whose schools will close April 30 or before to attend two summer terms before their schools open again in August, a six-weeks term, beginning April 30 and ending June 9, 1945, will be offered.

The primary purpose of this early term is to offer opportunities, especially to the teachers in schools of Levy, Gilchrist, Bradford and Union counties. Since, however, there are other schools in the State that will close before April 30, admission to teachers of such schools will not be denied.

Admission

1. No teacher will be admitted whose school has not closed by April 30.
2. No one will be admitted except teachers or those definitely engaged to teach.
3. No winter session student will be permitted to carry any of these courses in addition to his regular load.

General Information

Registration will be held Saturday, April 28, and Monday, April 30. No person will be registered after 4:00 P. M., April 30.

Schedule

1. Classes will begin at 7:00 A. M. and close at 5:30 P. M.
2. Classes will run for one hour and twenty minutes, with ten minutes for change of classes. (See schedule)

Fees and Load

1. The registration fee is $20.
2. Students who in their previous semester or summer term made an average of B may take three courses; others may not take more than two.

Living Accommodations

The facilities of the dormitories of the University will be ample.

Meals may be obtained at the University Cafeteria, the P. K. Yonge Laboratory School Cafeteria, and the University Soda Fountain.

SCHEDULE OF SPECIAL SUMMER TERM FOR IN-SERVICE TEACHERS - APRIL 30 - JUNE 9, 1945

Dept	Course	Cr	Days	Hours	Bldg	Room	Instructor	Course Title
Economics								
ES	487	3	Daily	4 - 5:30	YN	134	Durrance	Economic Geography of Europe
Education								
EN	402	3	Daily	To arrange	YN	120	Simmons	Administration Practice
EN	508	3	Daily	10 - 11:30	YN	132	Norman	Democracy and Education
EN	516	3	Daily	1 - 2:30	YN	218	Crago	Character and Personality Development
EN	528	3	Daily	2:30 - 4	YN	128	Williams, W R	Supervision of the Secondary School
English								
EH	380	3	Daily	1 - 2:30	YN	134	Congleton	English for Secondary Teachers
General Science								
GL	302	2	Daily	7 - 8 A M	YN	142	Goette	Children's Science
Geography								
GPY	201	3	Daily	10 - 11:30	YN	140	Barry	Geography of the Americas
GPY	323	3	Daily	2:30 - 4	YN	140	Barry	Elementary Climatography
Industrial Arts Education								
IN	111-12	4	Daily	10 - 11 4 - 5	YN	SHOP	Strickland	Mechanical Drawing
Mathematics								
MS	225	3	Daily	1 - 2:30	YN	132	Davis	Arithmetic for Teachers
Psychology								
PSY	309	3	Daily	10 - 11:30	YN	128	Hinckley	Personality Development
Sociology								
CSY	13	4	Daily	To arrange	YN	138	Maclachlan	Sociological Foundations of Modern Life

The University Record

of the

University of Florida

Bulletin of

The University Summer Session

1945

First Term—June 7 to July 20

Second Term—July 19 to August 31

(Both Terms Coeducational)

IMPORTANT

The time required for registration may be reduced considerably by mailing the application blank on the back cover prior to June 1. There will be no registration by mail.

Vol. XL, Series I No. 3 March 1, 1945

Published monthly by the University of Florida, Gainesville, Florida

Entered in the post office in Gainesville, Florida, as second-class matter, under Act of Congress, August 24, 1912

Office of Publication, Gainesville, Florida

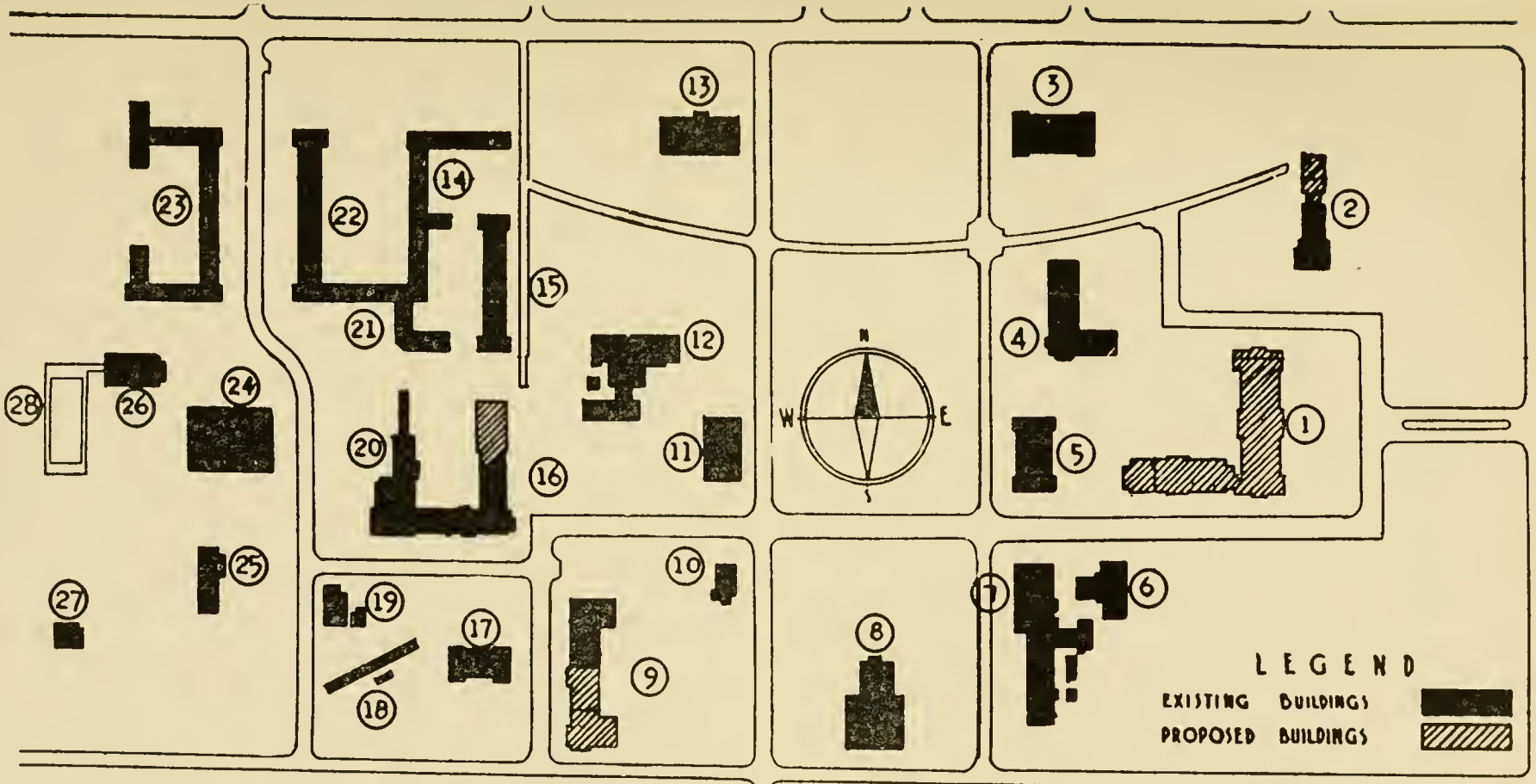
The Record Comprises:

The Reports of the President to the Board of Control, the bulletins of information, announcements of special courses of instruction, and reports of the University Officers.

These bulletins will be sent gratuitously to all persons who apply for them. The applicant should specifically state which bulletin or what information is desired. Address

THE REGISTRAR,
University of Florida,
Gainesville, Florida

CAMPUS—UNIVERSITY OF FLORIDA



No.	BUILDING	No.	BUILDING	No.	BUILDING	No.	BUILDING
1	Administration Building	8	Auditorium	15	Buckman Hall	22	Thomas Hall
2	Law Building	9	Horticultural Building	16	Florida Union	23	Murphree Hall
3	Language Hall	10	Campus Post Office	17	Experiment Station	24	Basketball Court
4	Library	11	Agricultural Building	18	Storage Building	25	Infirmary
5	Peabody Hall	12	Chemistry Building	19	Barracks	26	Gymnasium
6	Engineering Building	13	Science Hall	20	Cafeteria	27	"F" Club
7	Benton Hall and Shops	14	Fletcher Hall	21	Sledd Hall	28	Swimming Pool

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IMPORTANT NOTICE TO SUMMER SESSION STUDENTS

SAVE TIME—Each student who expects to attend the 1945 Summer Session must fill out the Application Blank on page 79. Previous attendance at the University of Florida does NOT waive this requirement. Fill out the Blank and send it to the Office of the Registrar if there is any possibility of your attending the 1945 Summer Session. Sending in the Blank involves no obligation on your part, but it will considerably reduce the time it takes to register, if you do decide to come.

Upon request, additional blanks will be supplied by the Registrar.

There will be no registration by mail.

IMPORTANT INFORMATION

After arriving at the University:

1. If room assignment has been made in University Residence Halls check in at the Office of the Director of Residence, Section F, Fletcher Hall. If you have not yet made a reservation, but wish to do so, call at this same Office.
2. For information concerning off-campus rooming accommodations, see Dean of Students, 105 Language Hall.
3. For information concerning social activities among women students, or on any matter of interest to women, see the Dean of Women, 105 Language Hall.

SUMMER SESSION CALENDAR

1945

FIRST SUMMER TERM

June 6, Wednesday, 1 p.m.	Placement Tests, Room 205, Peabody Hall.
June 7—June 8	Registration for First Summer Term.
June 9, Saturday, 7 a.m.	Classes begin. Late registration fee of $5 for registering on this date.
June 12, Tuesday, 4 p.m.	Last day for registration for the First Summer Term, and for adding courses.
June 23, Saturday, noon	Last day for making application for a degree that is to be awarded at the end of the First Summer Term.
July 2, Monday	Last day for graduate students, graduating at the end of the term, to submit theses to the Dean.
July 4, Wednesday	Holiday.
July 7, Saturday	Last day for students expecting to receive degrees at end of term to complete correspondence courses.
July 12, Thursday, 4 p.m.	Last day for filing application for extension of certificate. Last day for dropping courses without receiving grade of E.
July 18, Wednesday, 4 p.m.	Grades for all students expecting to receive degrees at end of term are due in the Office of the Registrar.
July 19—July 20	Registration for Second Summer Term.
July 19, Thursday	Faculty meetings to pass upon candidates for degrees.
July 20, Friday, noon	First Summer Term ends. All grades are due in the Office of the Registrar by 4 p.m.
July 20, Friday, 8 p.m.	Conferring of degrees.

SECOND SUMMER TERM

July 19—July 20	Registration for Second Summer Term.
July 21, Saturday, 7 a.m.	Classes begin. Late registration fee of $5 for registering on this date.
July 24, Tuesday, 4 p.m.	Last day for registration for the Second Summer Term, and for adding courses.
August 4, Saturday, noon	Last day for applications to take Comprehensive Examinations in Second Summer Term.
August 4, Saturday, noon	Last day for making application for a degree that is to be awarded at the end of the Second Summer Term.
August 11, Saturday, noon	Last day for graduate students, graduating at the end of the term, to submit theses to the Dean.
August 18, Saturday	Last day for students expecting to receive degrees at end of term to complete correspondence courses.
August 23, Thursday, 4 p.m.	Last day for filing application for extension of certificate. Last day for dropping courses without receiving grade of E.
August 29, Wednesday, 4 p.m.	Grades for all students expecting to receive degrees at end of term are due in the Office of the Registrar.
August 30, Thursday	Faculty meetings to pass upon candidates for degrees.
August 31, Friday, noon	Second Summer Term ends. All grades are due in the Office of the Registrar by 4 p.m.
August 31, Friday, 8 p.m.	Commencement Convocation.

OFFICERS OF ADMINISTRATION

John J. Tigert, M.A. (Oxon), LL.D., Ed.D., D.C.L., D.Litt., L.H.D., President of the University

Townes Randolph Leigh, Ph.D., D.Sc., Acting Vice-President of the University and Dean of the College of Arts and Sciences, First Term

James William Norman, Ph.D., Dean of the Summer Session

Nelle Barmore, B.A., Acting Librarian

Robert Colder Beaty, M.A., Dean of Students

Perry Albert Foote, Ph.D., Director of the School of Pharmacy

Klein Harrison Graham, LL.D., Business Manager

Lester Leonard Hale, M.A., Acting Director of Florida Union

Frederick T. Hannaford, B.A., A.L.A., Acting Director of the School of Architecture and Allied Arts

H. Harold Hume, D.Sc., Dean of the College of Agriculture

Richard Sadler Johnson, B.S.P., Registrar

Winston Woodard Little, M.A., Dean of the University College

Walter Jeffries Matherly, M.A., LL.D., Dean of the College of Business Administration

Carl Braden Opp, B.A., Acting Director of Residence

Glenn Ballard Simmons, Ph.D., Acting Dean of the College of Education

Thomas Marshall Simpson, Ph.D., Dean of the Graduate School, First Term

George Clarence Tillman, M.D., F.A.C.S., University Physician

Harry Raymond Trusler, M.A., LL.B., Dean of the College of Law

Joseph Weil, M.S., Dean of the College of Engineering

William Harold Wilson, Ph.D., Acting Dean of the College of Arts and Sciences, Second Term

ACCELERATED PROGRAM

The acceleration of an individual student's program for a degree will be possible if he attends a three-month Summer Session as well as the regular nine-month session during each school year, thus completing in three calender years (less in some cases) the work of four nine-month years. Fortunately the University has had several years experience in operating on virtually a year round basis. Since 1935 there has been a two term Summer Session in which it has been possible for a superior student to complete practically a semester's work. Additional adjustments are being made for the 1945 Summer Session which are outlined under the heading, The University College, in this bulletin.

Another opportunity for reducing the time spent in meeting degree requirements is available in the University College which from its beginning has provided for earning college credit by passing comprehensive examinations. For some courses students may, through independent study, prepare for these examinations. This plan has been operating since 1936, but in the past only a relatively few students have applied for this privilege. The examinations are not easy and cannot be passed without serious preparation, but superior students are encouraged to consider this as one of the ways in which they may accelerate their college education.

ADMISSION

Students who give evidence of being able to profit by college work will be admitted to the University of Florida Summer Session. It should be noted, however, that NO CREDIT will be allowed unless our specific admission requirements are satisfied. These requirements are:

1. For students who are entering college for the first time.

   See Admission to the University College, page 9.

2. For students who are transferring from another institution and who expect to receive a degree from the University of Florida.

   Official transcripts sent directly to the Registrar from all institutions previously attended. (Teachers' certificates or transcripts presented by students will not suffice.)

3. For students who wish to enter the College of Law.

   See Admission to the College of Law, page 9.

4. For students who wish to enter the Graduate School.

   See Admission to the Graduate School, page 9.

5. For students who regularly attend another college or university and who are attending the University of Florida Summer Session only for the purpose of securing credits to be transferred to the institution regularly attended.

   See Admission of Unclassified Students, page 9.

6. For students attending the University of Florida Summer Session only for the purpose of meeting teacher certification requirements, taking refresher courses, etc.

   See Admission of Unclassified Students, page 9.

It is the student's responsibility to supply the proper credentials as outlined in numbers 1, 2, 3, 4, 5, or 6 above. NO TRANSCRIPTS FOR COLLEGE CREDIT WILL BE ISSUED FOR ANY PERSON FAILING TO COMPLY WITH THE ABOVE.

Transfer students with at least 64 acceptable semester hours of advanced standing may be admitted to one of the colleges or professional schools of the University.

ADMISSION TO THE UNIVERSITY COLLEGE

The following items will be considered in the admission of students to the University College:

1. Graduation from high school. Graduation from high school is required, although no specific high school units are required.
2. Consistency of the high school record.
3. Achievement in high school.
4. Personal qualities.
5. Recommendation of high school principal.
6. Standing on Placement Tests.

All applicants should submit the Application Blank at the back of this bulletin, and in addition should have an Application for Admission blank sent to the Registrar. The latter may be secured from high school principals of the State. Applicants for admission from other states may secure an Application for Admission blank by writing the Registrar.

The Placement Tests will be given at 1 P.M., Wednesday, June 6, in 205 Peabody Hall. All applicants for admission to the University College are required to take these tests before registration.

ADMISSION TO THE COLLEGE OF LAW

Applicants for admission to the College of Law for the duration of the war must have credit for at least two years of academic college work meeting the requirements of the Association of American Law Schools. Evidence of this work must be presented to the Registrar of the University on or before the date on which the applicant wishes to register.

ADMISSION TO THE GRADUATE SCHOOL

To be admitted to the Graduate School an applicant must be a graduate of a standard college or university and have a foundation in the major subject sufficient in quantity and quality to be satisfactory to the department in which the student proposes to major.

A complete transcript of all undergraduate and graduate work *must* be transmitted to the Office of the Registrar before the date of registration.

ADMISSION OF UNCLASSIFIED STUDENTS

To be admitted as an unclassified student (see page 26, nos. 5 and 6) the applicant must submit a statement of honorable dismissal from the institution last attended.

THE CLASSIFICATION IN WHICH YOU SHOULD REGISTER

1. If you are entering college directly from high school, or if you have less than two years college work and wish to earn a degree at the University of Florida, you will register in the General College.
2. If you have more than two years college work but have not received the Bachelor's degree and you wish to earn a degree at the University of Florida, you will register in one of the colleges of the Upper Division. See pages 28 to 34.
3. If you have received the bachelor's degree and you wish graduate credit (credit that may apply on the master's or doctor's degree either at the University of Florida or elsewhere) you may register in the Graduate School, if the specific requirements are met.
4. If you do not wish to earn a degree at the University of Florida, but wish to attend the Summer Session to meet some specific need such as to satisfy teacher certification requirements or take refresher courses, you will register as an unclassified student.

EXPENSES

GENERAL FEES

Registration Fees (Florida Students) per term	$22.50
Registration Fees (Non-Florida Students) per term	$42.50
Registration Fees, College of Law, per term	$35.00
Late Registration Fee	5.00
Breakage Fee for Biology and Chemistry (unused portion refunded)	5.00
Diploma Fee	5.00

EXAMINATION FEES

A non-refundable fee of $1, payable on the day of application, is charged for each application for a comprehensive examination. Applications are necessary only in case the student is not currently registered in the course concerned.

REFUND OF FEES

Fees paid in advance for room reservations will be refunded up to and including, but not after June 5, for first term reservations, or July 14 for second term reservations.

If before 4 P. M. on Wednesday of the first week of each term students for any reason wish to withdraw from the University, the fees paid, less a flat fee of $3, will be refunded. No refunds will be made after this date.

LOAN FUNDS

The Summer Session is able to make small loans to a limited number of Summer Session teachers through the establishment of certain loan funds—the Florida State Scholarship Fund, the College Girls' Club Scholarship Loan Fund, the Elizabeth Skinner Jackson Loan Fund, the R. A. Gray Loan Fund, the Doyle E. Carlton Loan Fund, the W. N. Sheats Memorial Loan Fund, and the Harold Colee Loan Fund. Through the Office of the Dean of Students, information can be secured concerning other loans available to summer school students. Loans are governed by the following regulations.

(1) Applicant must be a teacher in the State of Florida.
(2) Applicant must have a position for the succeeding term of school.
(3) Applicant must be in need of aid.
(4) Applicant must apply for loan at least two weeks before opening of a Summer Term.
(5) Application must be made directly to the Dean of the Summer Session.

(6) Applicant must be recommended by two school officials of the county in which she is teaching at the time of application.
(7) Loans are to be used for attendance at the University of Florida Summer Session.
(8) Loans are made for a period not to exceed nine months.
(9) Loans bear interest at the rate of 6%, which is added to the principal fund.

Upon application to the Dean of the Summer Session, blank forms for application for a scholarship loan will be furnished.

KAPPA DELTA PI LOAN FUND

Upsilon Chapter of Kappa Delta Pi has established a loan fund available for small loans to graduate and undergraduate students who are preparing for the teaching profession. Among other eligibility requirements, a student desiring a loan must be a member of Kappa Delta Pi and must have a scholarship average of not less than *B*. Application should be made to the Chairman of the Committee on Loan Funds of Upsilon Chapter. Further information concerning this loan fund and forms for making application for a loan may be secured from the Secretary of the College of Education, Room 120, Yonge School, University of Florida, Gainesville, Florida.

STUDENTS' DEPOSITORY

For the convenience and protection of students while in residence at the University, funds may be deposited with the Cashier. A service charge of twenty-five cents is made on each account, per term.

CAFETERIAS

UNIVERSITY CAFETERIA

The Cafeteria is under the direction of a graduate dietitian, and offers to Summer Session students high quality food at reasonable prices. The meals are carefully planned, offering a pleasing variety of foods attractively served.

Many innovations have been made in equipment and methods, resulting in a service as complete and modern as that found in any school cafeteria in the south.

All service is cafeteria style, affording individual selections. The policy is to furnish well prepared food at actual cost. Coupon books containing tickets with a monetary value for use at the Cafeteria are sold by the University Cashier.

P. K. YONGE SCHOOL CAFETERIA

The P. K. Yonge School Cafeteria will be open to University students for the entire Summer Session. It is under the direction of an experienced dietitian and a high quality of food will be furnished at reasonable prices.

All service is cafeteria style, affording individual selections. The policy is to furnisl well-prepared food at actual cost.

UNIVERSITY RESIDENCE HALLS

The purpose of the Residence Halls is to provide comfortable student living quarters at economical rates. The Halls are self-supporting: the costs of their construction, maintenance, repair, and management, including the salaries of all persons directly concerned with their operation, are paid from monies received as rent. There is no other source of

income. For this reason it is necessary that rent accounts be paid promptly and that residents cooperate to the fullest extent in caring for rooms, equipment, and grounds.

The Office of the Director of Residence was created in 1939 and began operations in September of that year. Its purposes are: (1) to supervise the financial and physical operation of the Halls; (2) to assist in attaining and maintaining high standards of student morale and self-discipline; and (3) to assist in improving conditions of student residence within the facilities available. In carrying out these aims, restrictions are held to the minimum required by the necessities of group living. All student privileges are based upon acceptance of the responsibility for self-discipline; and every effort is made, within the limitations imposed by staff size and time, to aid residents in their adjustment to the Residence Halls and the University. No resident should hesitate to take up any matter with the Director's Office at any time.

A Committee on Residence, composed of the Dean of Students, the Business Manager, and the Registrar, is responsible for supervision of general policy regarding the Residence Halls.

A Student Monitor (or Preceptress) is in charge of each section of the Residence Halls and is responsible, through the Director of Residence, to the Committee on Residence for the general management of each section and the conduct of its residents. He has the authority to invoke or recommend disciplinary measures for conduct detrimental to the section or the Residence Halls.

FACILITIES

The University of Florida Residence Halls consist of five dormitories: Buckman, Thomas, Sledd, Fletcher, and Murphree Halls. Each is divided into sections which accommodate an average of thirty-two residents each. A bathroom with shower, lavatories, and toilets is located on each floor of each section.

All five Halls have brick exteriors with tile roofs. Sledd, Fletcher, and Murphree Halls and the remodeled sections of Buckman and Thomas Halls have interior construction of steel and tile. The rooms in these sections have composition tile floors, rough plaster walls with light finish, built-in dressers, closets, lavatories, and medicine cabinets. Many rooms on the first and second floors have bay windows, and all rooms have adequate light and air. Steam heat is furnished during the winter months, and there is an ample supply of hot water throughout the day.

The Halls are conveniently located in relation to the University Cafeteria, the University Post Office, the gymnasia, swimming pool, playing fields, Florida Union, Infirmary, and classrooms. Two large and comfortably furnished lounges are generally available to residents for social activities and the entertainment of friends and visitors. Fletcher Lounge is located on the first floor of Fletcher F, and Murphree Lounge is located on the first floor of Murphree J.

Room furnishings consist of single beds, innerspring mattresses, desks, chairs, wastebaskets, and roller shades. Additional equipment, such as upholstered easy chairs, extra tables, and similar items, is gradually being placed in the rooms; charges for such items are included in the incidental costs listed below. Some of the smaller double rooms in Fletcher Hall, as well as several two-room suites for three in other Halls, are furnished with commodious double-deck bunks instead of single beds.

The following types of rooms are available: *Single (S.)*—one room for one person; *Double (D.)*—one room for two persons; *Triple (T.)*—one room for three persons; *Two Room Suite (2RS.)*—bedroom and study room for two persons; and *Two-Room Suite for Three (2RS-3.)*—bedroom and study room for three persons.

RATES AND CHARGES

The schedule given below indicates the rate per person for each semester of the Regular Session.

Halls:	BUCKMAN		THOMAS		SLEDD		FLETCHER		MURPHREE	
Type:	Rms.	Rate	Rms.	Rate	Rms.	Rate	Rms.	Rate	Rms.	Rate
Single	13	$38.00	39	$38.00	6	$42.00	7	$45.00	—	—
	—	—	—	—	3	$40.00*	5	$40.00*	—	—
Double	23	$32.00	38	$32.00	—	—	14	$40.00	—	—
	—	—	12	$30.00**	—	—	6	$37.50*	15	$37.50*
Triple	2	$24.50	3	$30.00	—	—	—	—	—	—
	—	—	2	$24.50	—	—	—	—	—	—
2-Room Suite for 2	—	—	—	—	56	$40.00	63	$41.00	133	$41.00
	—	—	—	—	21	$34.00*	22	$40.00*	30	$40.00*
2-Room Suite for 3	22	$24.50	10	$24.50	8	$36.00	4	$37.00	8	$37.00
	—	—	—	—	—	—	—	—	2	$36.00*

* Fourth floor rooms.
** Without lavatory in room.

Summer Session rates (per term) are approximately one-third of the amounts shown above: e.g., a two-room suite for two renting at $41.00 per person per semester in the Regular Session rents for $13.50 per person each term of the Summer Session.

Room rent and other charges for the term or semester are due and payable in advance at the beginning of the period. In cases where necessity is shown, arrangements may be made for installment payments of room rent, subject to the approval of the Committee on Residence. Such arrangements bear a carrying charge. Failure to pay rent when due or as arranged may result in cancellation of University registration.

Extra electrical appliances (excepting one study lamp allowed each resident and razors and clocks) are charged for each item per term or semester. The wiring of all electrical equipment is subject to inspection and must meet electrician's standards. The use of hot-plates and similar electric heating or cooking devices and radio sending sets is prohibited.

Extra equipment, such as easy chairs, extra chairs, extra tables, bookcases and similar items, in the rooms is charged for per item by the term or semester.

Pillows and linens are available for rent in limited quantities only. Residents are responsible for exchange or return of such items. Except for emergencies, it is recommended that residents furnish their own linens, pillows, and blankets.

MAKING RESERVATIONS

Anyone desiring to make room reservations should address the Office of the Director of Residence for application forms and information as to Halls available for the period he plans to attend.

A room reservation fee of $10.00 per person for the Regular Session and $5.00 per person for the Summer Session, must be posted before an assignment can be made. This fee is not a payment on rent but is a deposit which is refundable, less any outstanding charges, after the student has completed his period of residence and vacated his room, and the premises have been checked as to condition. Checks or money orders for this fee should be made payable to the University of Florida.

Each applicant will be given advance notification, if possible, of his exact room assignment, the earliest date he may occupy his room, the latest date for cancellation of reservation without forfeiture of the reservation fee, and other essential information. Assignments are made in order according to the date on which the reservation fee is posted.

Room assignments for men residents are made by a schedule under which certain rooms are assigned to freshmen only, and others to upperclassmen only. The purpose of this schedule is to distribute the two levels of students evenly throughout all sections.

During the Summer Session, certain sections of the hall or halls reserved for women students are allocated for the assignment of rooms to women students under 21 years of age.

Residents are responsible for their rooms for the entire Regular Session (two semesters) or Summer Session (two terms) unless otherwise arranged. Residents may not change rooms or move to quarters off-campus unless such changes are approved, in advance, by the Director of Residence or the Committee on Residence. Residents resigning from school because of induction into the armed services or because of illness will be granted pro-rata refunds when proper evidence of induction or illness is presented to the Director of Residence.

GENERAL POLICIES

Statement of Policy for Residence Halls is posted on the inside of the entrance door to each room. Each resident is responsible for knowing and observing the principles of conduct set forth in this "Statement" and the "Supplement" thereto. The "Supplement" is placed behind the "Policy" placard; both bulletins are part of room equipment and should not be defaced or removed from the room.

The "Quiet Hour" Period (7:00 P.M. to 8:00 A.M. daily except Saturday) is the most important single point in Residence Halls policy. Its scrupulous observance by all residents contributes more than any other activity to the creation of ideal conditions for study and rest.

All students who have had less than one year of college work are required to live in the Residence Halls as long as spaces are available for assignment to them. This regulation does not apply to students whose parents are residents of the City of Gainesville or who live within daily commuting distance from the University.

All rooms are subject to inspection by the Director of Residence or his representatives, and each resident is responsible for keeping his room in order. Fines may be levied and collected for failure to keep rooms neat or for damage to rooms and equipment. Pasting, nailing, screwing, or otherwise attaching pictures, hangers, racks, and similar gadgets to walls or woodwork is strictly prohibited. Thumb tacks or slip-over picture molding hangers may be used.

University Regulations prohibit the use of firearms or explosives in rooms or the Residence Halls area, cooking or keeping food in rooms, and the possession or use of alcoholic beverages in rooms or Residence Halls area.

All equipment is numbered and recorded as to location and condition. Trading, shifting, or otherwise altering the location or condition of any equipment without permission

from the Office of the Director is prohibited. Items requiring repair should be reported by both equipment and room number.

SPECIAL INFORMATION AND SERVICES

Residents must furnish, unless it is otherwise arranged, their own linens, pillows, towels, blankets, bedspreads, laundry bags, study lamps, and other special items they may desire for their personal convenience.

Heavy luggage may be sent ahead, prepaid, addressed in the name of the resident, c/o Sledd Hall Archway. The University assumes no responsibility beyond the exercise of reasonable care for any shipments so received. Residents making such shipments must sign for them before they will be released from the Archway.

Residents check in at the Office of the Director of Residence to receive their room keys and pay their rent. IMPORTANT NOTE: Residents who will arrive later than the opening day of registration, or who will arrive in the evening hours after 5:00 P.M. should give advance notification of the date and hour of their arrival.

After checking in residents should: (1) pin their name cards to their room doors to aid in delivery of messages; (2) unpack trunks and heavy luggage preparatory to storing such items in the basements; and (3) obtain key case or key chain to aid in preventing loss of room key.

Limited messenger service is provided for delivering telephone messages, long distance calls, campus mail, and special delivery letters. Telephone facilities for local calls are available in the Office during office hours.

Repairs and electrical replacements needed should be reported promptly to the Director's office. Residents should not attempt to make repairs or replacements themselves; those who find any defects in their rooms or room furnishings when they move in should report them at once to make certain they are properly recorded. Burned out light bulbs should be left in fixtures till replaced by maintenance workers.

Laundry, newspaper, and dry-cleaning solicitors are allowed to service the Residence Halls only after obtaining a permit from the Director of Residence.

Valuables, money, watches, and jewelry should be properly safeguarded at all times and never left carelessly in any room. All losses should be reported promptly to the Director's Office. Room doors should be locked at all times when residents are not in their rooms. Loss of room keys should be reported promptly and arrangements made for replacements.

Janitor and maid service is furnished daily, except Sundays, for cleaning rooms, bathrooms, hallways, and stairways. Unless otherwise instructed, residents shall be required to make up their own beds daily.

STATEMENT OF POLICY
FOR
UNIVERSITY OF FLORIDA RESIDENCE HALLS

The welfare of all students living in the Residence Halls, the students' residence for nine months, makes it incumbent on each individual to observe generally accepted principles of proper group and individual conduct. Each student is responsible for being familiar with the University Student Regulations and for the observance of them.

The Residence Halls are under the supervision of the Director of Residence. Each section is in charge of a student monitor.

The following represent a general statement of policy concerning Residence Hall conduct:

1. Any conduct or actions detrimental to the welfare of the students and to the University shall be deemed contrary to Residence Hall Policy.
2. Quiet hours from 7:00 P.M. to 8:00 A.M. daily except Saturday. Unwarranted disturbance, rough housing, and excessive noise are prohibited at all times. All radios should be kept away from windows and are to be operated always at low volume. Practice hours for student musicians are from 12:00 P.M. to 2:00 P.M. and 5:00 P.M. to 7:00 P.M. The University Auditorium should be used at other times. Special hours during examination periods will be observed.
3. Room cleanliness and care: Each student is to keep his room in order; to utilize the proper receptacles for waste paper, trash, etc.; and is to refrain from altering or marring equipment or walls in any manner.
4. On questions concerning room contract, cash deposit or costs for extra appliances confer with Office of the Director of Residence. The amount of any damages in room or section will be deducted from the student's room reservation fee unless paid for otherwise.
5. The University reserves the right for its authorized agents to enter and inspect rooms at any time.
6. Students' mothers and sisters may visit rooms after written permits have been obtained from the Office of the Director of Residence. These permits will be issued only during morning and afternoon hours.
7. In order to prevent pilfering and petty thievery, residents should keep doors locked at all times. Valuables such as money, watches and jewelry, should be properly safeguarded, and never left carelessly in any room.
8. All athletic activities, including diamond ball, baseball, touch football, etc., are restricted from the Residence Hall area. Athletic fields are to be used for these purposes.

STUDENT PRIVILEGES ARE BASED ON INDIVIDUAL ACCEPTANCE OF RESPONSIBILITIES. THESE STATEMENTS OF POLICY ARE FOR YOUR CONVENIENCE. YOUR COOPERATION IN THEIR OBSERVATION IS EXPECTED.

GENERAL INFORMATION

ACTIVITIES

A special feature of the Summer Session will be the lectures of the noted sociologist, William F. Ogburn, of the University of Chicago. Dr. Ogburn will be on the campus from June 18 through June 23. In addition to his lectures he will be available daily for conferences with individual students as they may desire.

ENTERTAINMENTS AND PLAYS

Adequate facilities for entertainments and plays are provided in the University Auditorium, which has a seating capacity of approximately 1800. In addition to the main University Auditorium, the auditoriums in Florida Union and in the P. K. Yonge Laboratory School will be available. Stress is placed upon performances by the students in plays and musical entertainments being produced from time to time by the staffs of the departments of Speech and Music.

RELIGIOUS AND SOCIAL LIFE

The moral and religious atmosphere of the Summer Session is wholesome. The leading religious denominations have attractive places of worship, and students are welcomed at every service. Transportation to and from church is provided for students who will attend. Frequent devotional services are held in the University Auditorium in connection with the Student Assembly.

THE FLORIDA UNION BUILDING

The Florida Union is operated as an official social center for the campus. Reading, recreation, and lounging rooms will supply adequate facilities for social activities and for comfortable relaxation.

THE GENERAL ASSEMBLY

All students and faculty members are expected to attend the General Assembly, which will be held in the University Auditorium at hours scheduled below. Important announcements will be made at the General Assembly, for the observance of which students will be held responsible.

11:00 A.M. Wednesday, June 20
10:00 A.M. Wednesday, July 11
8:00 A.M. Wednesday, July 25
10:00 A.M. Wednesday, August 8

SWIMMING POOL

The facilities of the swimming pool will be available, without charge, to students registered in the Summer Session. Those interested should see Mr. Genovar, Gymnasium. The pool will be open daily, except Monday, from 1:00 to 6:00 P. M.

PHI KAPPA PHI

A chapter of the Honor Society of Phi Kappa Phi was established at the University in 1912. To be eligible for membership, a student must previously have earned at the University at least thirty semester hours credit, must have been guilty of no serious breach of discipline, and must stand among the upper tenth of all candidates for degrees. Candidates for election to Phi Kappa Phi must have attained an honor point average of at least 3.00 (B) on all scholastic work. If a student comes within the quota for his college, an average of 3.00 assures his eligibility, but if he does not come within the quota, it is necessary that he have an average of 3.30 or higher. Graduate students are also eligible for membership.

KAPPA DELTA PI

Upsilon Chapter of Kappa Delta Pi was established at the University of Florida in 1923. Kappa Delta Pi has as its purpose the encouragement of high intellectual and scholastic standards and the recognition of outstanding contributions in education. In general, the scholarship requirement for members in Upsilon Chapter is a scholastic average of 3.00 (B). High scholarship alone, however, will not guarantee election to membership. Other qualities which the person must possess are: desirable personal-social qualities, leadership abilities, worthy educational ideals, and continued interest in education.

PHI BETA KAPPA

Phi Beta Kappa was established on the campus of the University of Florida in 1938. It is the oldest national fraternity, being founded in 1776. In conformity with the national objectives of the society, the University of Florida chapter restricts election to the College of Arts and Sciences. Not more than 15% of the senior class graduating in each semester, including both graduating classes of summer session, is eligible for election.

ANNOUNCEMENTS

Important announcements will be made on the bulletin boards in Florida Union, Peabody Hall and Language Hall. Students should read these daily. Students are responsible for all announcements made in the General Assembly, on the official bulletin boards, and in the Orange and Blue Bulletin.

ORANGE AND BLUE BULLETIN

An official mimeographed bulletin is published every other day during the Summer Session. It appears on all bulletin boards and carries notices of changes in schedule, meetings, lost and found articles, etc. Students and faculty members are responsible for observance of all official notices published in the Bulletin.

THE PLACEMENT BUREAU

The Placement Bureau of the College of Education attempts to render a public service. This is not mere mechanical routine of finding teaching positions for graduates; the Bureau considers the welfare of the school concerned, and tries to get the right person in the right teaching position.

There is no service fee for University graduates. Students who wish the help of the Bureau may arrange an interview with the Director and submit complete credentials. On request, this information is sent to school officials of the State.

Many specific requests are received from district trustees and county school boards. Every effort is made to furnish these officials with information that will enable them to select the teachers most likely to succeed in the schools concerned.

Communications in regard to teaching positions should be addressed to the Director of the Teachers' Placement Bureau, College of Education, University of Florida, Gainesville.

THE P. K. YONGE LABORATORY SCHOOL

The P. K. Yonge Laboratory School was established to serve the public schools and other educational agencies through five major functions:

1. By demonstrating an excellent quality of teaching in elementary and high school.
2. By providing facilities for attaining an understanding of the teaching arts and skills in the use of them.

3. By assisting the schools of the state through counseling and the distribution of educational materials.
4. By serving as an experimental educational laboratory for investigations of all kinds of school problems, for the production of materials, and for experiments in improved methods of teaching.
5. By providing opportunities for observation of classroom management and participation in teaching.

The Laboratory School will be open both terms of the Summer Session. Application for enrollment should be made to the Director of the Laboratory School as soon as possible since the number who may be accommodated is limited. Classes from the kindergarten through the high school will be held as needed.

Pupils will register on Monday, June 11, in Room 230, Yonge Building, from 8:30 to 10:00 A.M. There are no registration fees for the Laboratory School. Classes will begin Monday, June 11, at 9:00 A.M.

FLORIDA CURRICULUM LABORATORY

The Florida Curriculum Laboratory is located on the third floor of the P. K. Yonge Building. This Laboratory is made possible by the cooperation of the Florida State Department of Education, the College of Education, and the Laboratory School of the University of Florida. Books and other curriculum materials used in the Florida Program for the Improvement of Instruction are available here.

DOE MUSEUM

The Doe Museum connected with the P. K. Yonge Laboratory School is located on the third floor of the P. K. Yonge Building. The Museum will be open from 9:00 A. M. to 4:00 P. M. daily, except Saturday, and from 9:00 A. M. to 12:00 noon on Saturday, from June 11 through July 21. This Museum houses a unique collection prepared by the Curator, Charles E. Doe.

THE UNIVERSITY LIBRARIES

The University Library system consists of twelve libraries, eight of which have separate administrations: the Main Library, which has under its jurisdiction the libraries of the Florida Union, Chemistry-Pharmacy, and the School of Architecture; the P. K. Yonge Library of Florida History; the Law Library; the School of Forestry Library; the General Extension Library; the P. K. Yonge School Library; the Joseph R. Fulk Administrators Library; the Curriculum Laboratory Library; and the Agricultural Experiment Station Research Library. The holdings of all these libraries are shown in the card catalog of the Main Library with the exception of the newly organized P. K. Yonge Memorial Library, which is not yet cataloged.

THE MAIN LIBRARY

The Main Library collection consists of over 170,000 books. There are two large reading rooms: One, on the ground floor, is assigned for reading in the University College and for Upper Division students; on the second floor is the Reference room where are found reference books, current periodicals, the card catalog, and newspapers. Here also is located the general loan desk. In the book stacks there are forty-eight carrels for the use of graduate students in their work.

P. K. YONGE SCHOOL LIBRARY

The P. K. Yonge Laboratory School Library will be open for use of teachers attending the Summer Session. This library contains about 7,000 books for boys and girls from the kindergarten through the twelfth grade. These books are available for use in the library only and may not be checked out.

The library will be open during the following hours: 8:30 A.M. to 12:00 noon; Saturdays: 9:00 A.M. to 12:00 noon. Afternoon hours will be scheduled to meet the needs of the teachers.

The librarian will post hours when she will be available for conference on individual library problems. Teachers and principals are invited to ask for whatever help they may need.

THE P. K. YONGE LIBRARY OF FLORIDA HISTORY

The P. K. Yonge Library of Florida History is located on the third floor of the Law Library. The Library, a gift of Julien C. Yonge of Pensacola, was established in 1944 as a research library for students of Florida history. It is one of the best existing libraries for Florida newspapers, magazines, pamphlets, and State publications. Microfilms of archives relating to Florida are constantly being added to the Library. Gifts or loans of historical material by citizens of the State are increasing its usefulness as a research center.

LATIN-AMERICAN WORKSHOP

A workshop on Latin-American affairs will be offered this summer. This has been made possible by a grant-in-aid from the Coordinator of Inter-American Affairs of Washington, D. C.

The work shop will include a full program of foreign language courses, featuring intensive methods and the oral approach. Special emphasis will be placed on Portuguese. Courses in geography, history, and the civilization of Latin America will be offered. Demonstration teaching of Spanish at the elementary level will be a special feature. Dining tables and social rooms will be reserved for conversational practice in Spanish and Portuguese with opportunity for contact with native speakers.

COURSES FOR TEACHERS OF HANDICAPPED CHILDREN

Through the generosity and assistance of the Florida Society for Crippled Children and Physically Handicapped Persons, Inc., special courses have been designed for teachers of handicapped children. These courses, more fully described on page 57, will be offered through the Department of Speech.

CERTIFICATION OF TEACHERS

Persons desiring information concerning the certification of teachers are advised to write the State Department of Education, Tallahassee, Florida, requesting *Bulletin A on Certification of Teachers.* This booklet gives all requirements for Graduate and Undergraduate Certificates in the various fields as well as instructions concerning applications for certificates.

As a matter of information to students (and with emphasis on the point that certificates are granted by the State Department of Education, not by the University) some of the requirements listed in the Certificate Bulletin A, September, 1944, of the State Department of Education are repeated below with the numbers of the courses offered by the University which are designed to meet these requirements.

Requirements	*University Courses Meeting the Requirements
For All Certificates:	
Constitution	Two of the following: Hy. 301, 302, 303, 304, 331, 332; CPl. 13; Pcl. 313, 314
General Preparation	C-1 and C-3 and C-2 or C-6
Health Education	HPl. 387 (or En. 387 or En. 103)
Physical Education	HPl. 363, 364, 373
For Elementary Certificates:	
Child Development	En. 385 (or En. 203 or En. 319)
Educational Psychology	En. 386 (or En. 207)
History and Principles or Introduction to Education	CEn. 13 (or En. 101 or 102)
Elementary School Curriculum or Methods of Teaching in the Elementary School	En. 471 (or En. 308)
Principles and Methods of Teaching Reading	En. 471 (or En. 221)
Children's Literature	Eh. 391
Methods of Teaching Science in Elementary School	Gl. 301 or Gl. 302 (or En. 209 or 222)
Methods in Arithmetic	En. 471 (or En. 124)
Methods in Social Studies	Scl. 301 or 302 (or En. 201)
Geography	C-2 or Courses in Gpy.
Observation and Practice Teaching	En. 405 or En. 421-2 (or En. 253)
Public School Music	Msc. courses
Public School Art	Pc. courses
Health Education in Elementary Grades	HPl. 387
Physical Education in Elementary Grades	HPl. 373
Penmanship	BEn. 97 (or Hg. 101)
For Secondary Certificates:	
English	C-3 and courses in CEh. and Eh.
Mathematics	C-42, C-421 and courses in CMs. and Ms.
Physical Education	Courses in HPl.
Science:	
Physical Sciences	C-2, Courses in Ps. and Cy.
Biological Sciences	C-6, Courses in Bly. and Bty.
Conservation	C-1 or C-2 or C-6 or Gpy. 385 or Gpy. 387 or Es. 381 or Es. 382
Social Studies:	
History	Courses in CHy. and Hy.
Political Science	Courses in CPl. and Pcl.
Economics	Courses in CEs. and Es.
Sociology	Courses in CSy. and Sy.
Geography	Courses in Gpy. and Es. 381, 385
Conservation	See Science
General	C-1 will be counted as 8 of the total hours required but will not reduce the specific requirements.

Some of the certification requirements listed in the literature of the State Department may not be represented by the same titles in this catalogue. To facilitate finding the proper course descriptions for such fields, guide is provided (see page 39).

*Based upon present offerings. Discontinued courses which will meet the requirements are shown in parentheses.

INFORMATION REGARDING ISSUANCE OF WAR PROVISIONAL CERTIFICATES

BRIEF OUTLINE OF REQUIREMENTS FOR ALL PROVISIONAL CERTIFICATES GRANTED ON BASIS OF COLLEGE TRAINING

1. Regular Provisional Certificates

Issued to applicant who lacks no more than six semester hours of meeting requirements for a Graduate Certificate.

2. War Provisional Certificates

(Note: Persons who have held Florida certificates which expired not less than one full year nor more than ten years prior to the date of present application and which were based on two or four years of college training, without further review of college transcripts, shall be entitled to War Provisional Certificates covering the same subjects and teaching range as the original certificates which have expired.)

A. War Provisional Certificates for Graduates

1. 120 semester hours college credit from a standard institution
2. 12 semester hours education, including six semester hours observation and practice teaching or teaching experience in lieu of practice teaching
3. 18 semester hours general background work.
4. Meet specialization requirements for fields listed on certificate. (See pp. 10-11 *Certificate Bulletin W.* 1943; pp. 5-10 *Certificate Bulletin A.*)

B. War Provisional Certificates for Undergraduates

1. 60 semester hours of college credit from a standard institution
2. 9 semester hours of education, including three semester hours of observation and practice teaching or teaching experience in lieu of practice teaching
3. 18 semester hours general background courses
4. Meet specialized requirements for fields listed on certificate. (See pp. 10-11 *Certificate Bulletin W.* 1943; pp. 5-10 *Certificate Bulletin A.*)

3. Limited War Provisional Certificates

A. Limited War Provisional Certificates (State-wide validity)

1. Type I. Granted to two- and four-year graduates of non-accredited institutions who meet all requirements outlined above for the War Provisional Certificate for Graduates and the War Provisional Certificate for Undergraduates.

2. Type II. Granted to individuals who have 30 semester hours of work and who meet specialization requirements in such critical fields as music, industrial arts, mathematics.

B. Limited War Provisional Certificate (County-wide validity)

30 semester hours of work and recommendation of county superintendent of the county in which teacher is to serve.

WAYS IN WHICH HOLDERS OF PROVISIONAL CERTIFICATES MAY WORK TOWARD REGULAR CERTIFICATES

Individuals who are teaching on the basis of War Provisional Certificates or Limited War Provisional Certificates may wish to make plans now whereby they may complete requirements for one of the regular certificates. The following suggestions regarding the way in which this may be done may be helpful:

1. War Provisional Certificates for Graduates: Holders should take courses which will enable them to meet requirements for a Graduate Certificate. Usually, the requirements not met by such individuals involve recency-of-credit, specialization courses, observation or practice teaching or recent teaching experience, and satisfaction of the Constitution Requirement. The State Department of Education will be glad to outline work needed for the issuance of the Graduate Certificate to anyone now holding the War Provisional Certificate for Graduates.

2. War Provisional Certificates for Undergraduates: Holders should take courses leading to the issuance of the Undergraduate Certificate. If the War Provisional Certificate for Undergraduates was granted upon the successful completion of a two-year elementary curriculum at a standard institution, the applicant should write the State Department of Education for an outline of additional work necessary for the Undergraduate Certificate. If the above certificate was issued upon the basis of 60 or more semester hours of training earned at one or more institutions and if the work taken was not organized to follow the pattern of a regular two-year elementary curriculum, the applicant should transfer all work to one standard institution and plan additional work with the dean in view of meeting requirements for that school's two-year program in order to secure recommendation for the Undergraduate Certificate.

3. Limited War Provisional Certificates: Holders of Limited War Provisional Certificates granted upon the basis of a four-year degree from a non-accredited school should plan to validate their degrees in one of the following ways:

   (1) By gaining unconditional admission to candidacy for an advanced degree in a standard institution of higher learning as defined in *Certificate Bulletin A*, September, 1944, page 3.

   (2) By earning 12 semester hours of graduate credit in such a standard graduate school with the recommendation that the work done by the individual at the graduate level merits full recognition of the undergraduate record.

Other requirements for the Graduate Certificate as outlined in *Certificate Bulletin A*, September, 1944, must be met also.

Holders of all other War Provisional Certificates should have their credits transferred to a standard institution and plan additional work in view of meeting requirements for the certificates they wish to secure.

REGULATIONS GOVERNING EXTENSION OF CERTIFICATES

The following more important items govern the granting of extension certificates:

1. The certificate must be valid at the close of the Summer Term attended and at the time formal application for extension is made.
2. The applicant must pass at least six semester hours in which no grade is below a "C".

3. No student will be granted an extension of certificate who does not apply for the same. In case the student fails to apply on the Registration Card at time of registration, request may be made to the Registrar, Room 110, Language Hall, to have his application for extension properly recorded. A list of those who have applied will be posted on the bulletin boards in Language Hall and Peabody Hall not later than July 5 for the First Term and August 14 for the Second Term. In case of error in this list, students should report to the Registrar. No student will be recommended for extension whose name does not appear on this list by July 12 for the First Term or August 23 for the Second Term. Students should indicate exactly the name that appears on the certificate which they wish to have extended.
4. Certificates to be extended must be sent by registered mail to Colin English, State Superintendent of Public Instruction, Tallahassee, Florida, within a year after the close of the Summer Term. Otherwise extension will not be granted.

GENERAL REGULATIONS

STUDENT RESPONSIBILITY

Each student must assume full responsibility for registering for the proper courses and for fulfilling all requirements for his degree. Students should confer with the dean of their college, regarding choice of courses several days before registration; in addition to this, juniors and seniors should confer with the head of the department in which they expect to earn a major. Seniors must file, in the Office of the Registrar, formal application for a degree and must pay the diploma fee very early in the term in which they expect to receive the degree; the official calendar shows the latest day on which this can be done.

Each student is responsible for every course for which he registers. *Courses can be dropped or changed only with the approval of the dean of the college in which the student is registered and by presentation of the cards authorizing the change at the office of the Registrar.* Unclassified students must secure the approval of the Dean of the Summer Session for this purpose.

The student is advised to procure a copy of *Student Regulations, Part I,* and acquaint himself with all general regulations. Particular attention is directed to the following items:

CREDITS

The term credit as used in this bulletin in reference to courses is equal to one semester hour.

RESIDENCE REQUIREMENTS

1. The minimum residence requirement for the baccalaureate degree is two semester terms, or one semester and three summer terms, or five summer terms. New students offering advanced standing must meet this requirement after entrance to the University. Students who break their residence at the University by attending another institution for credit toward the degree must meet this requirement after re-entering the University.

2. For the master's degree two semesters or six summer terms are necessary to satisfy the residence requirements, except for the Master of Education degree, where the requirements are two regular terms and one summer term, or six summer terms.

3. Students are required to complete the last thirty credit hours (28 in the College of Law) applied towards the baccalaureate degree during regular residence in the college from which the student is to be graduated. Exception to this regulation may be made only upon written petition approved by the faculty of the college concerned, but in no case may the amount of extension work permitted exceed more than twelve of the last thirty-six hours required for a baccalaureate degree.

AMOUNT OF EXTENSION WORK PERMITTED

No person will be allowed to take more than one-fourth of the credits toward a degree by correspondence study and extension class work. No person will be allowed to take more than 12 of the last 36 credits necessary for a bachelor's degree by correspondence study or extension class work. No person will be allowed to take more than 9 credits by correspondence during the summer vacation period. While in residence, a student will not be allowed to take work by correspondence without the consent of the dean of the college concerned. This will be granted only in exceptional cases.

No extension work is permitted in the last thirty hours, except by special permission.

MAXIMUM AND MINIMUM LOAD

The maximum load for which an undergraduate student may register is determined by the individual's academic average for the last term or semester of college work, regardless of the institution attended.

1. An average of "B" or higher ..... 9 hours
2. An average of less than "B" ..... 6 hours, regardless of the number of courses
   or
   8 hours, with a maximum of 2 courses.

Maximum load is six semester hours per term in the Graduate School and seven hours in the College of Law.

Minimum load is four semester hours. At the time of registration loads of less than four hours may be approved by the Dean concerned. After registration, loads of less than four hours can be approved by the Sub-Committee of the University Senate.

GRADUATION WITH HONORS

For regulations in the various colleges covering graduation with Honors, see the *Catalog*.

UNCLASSIFIED STUDENTS

1. This group will include (a) students from other colleges and universities earning credits to be transferred eventually to their respective institutions, (b) students with degrees taking refresher courses, and (c) other students not candidates for degrees.

2. In the event any student who has attended a Summer Session as an unclassified student later wishes to become a candidate for a degree in one of the colleges or schools of the University, it will be necessary for such student to regularize his admission to the University (present all the credentials required) and meet the requirements (in effect at the time of application for candidacy) for admission to the college or school of his choice.

3. If such a student is admitted to candidacy for a degree, credits earned while an unclassified student will be accepted in so far as they apply toward the degree requirements (in effect at the time he is admitted to candidacy) of the college or school chosen by the student. A student must have been registered as a regular student in the college or school from which he expects to receive a bachelor's degree for at least three summer terms and in the Graduate School for at least five summer terms for the master's degree. The residence requirement of at least five summer terms in the University will not be waived in any case.

4. Students regularly enrolled during the academic year cannot become unclassified students during the Summer Session.

5. Each student registered as an unclassified student will be given a definite statement of the policies governing the application for admission to candidacy in the various colleges and schools. This statement will make clear that credits earned while a student is registered as an unclassified student can be applied toward a degree in the college of his choice only if under regular procedure this credit will apply toward that degree.

6. The registration blanks for unclassified students will be approved by the Dean of the Summer Session and assistants chosen by him from the faculty.

ADJUSTMENTS FOR STUDENTS CALLED INTO ARMED FORCES DURING A TERM OR SEMESTER

Each case is handled individually by the University Senate Sub-Committee on student petitions. If a student has actually received orders to report for military duty or other war activity, this committee will endeavor to make such adjustments as are possible. Such a student should consult the Dean of the College in which he is registered, the Dean of Students, or the Registrar for additional information or assistance in presenting his case. Committee action may authorize instructors to give examinations early or to make other adjustments. The committee does not give grades or grant credit. If a student leaves before it is possible to take examinations, information on his standing is collected and filed as a part of his record so that it may be used to adjust his program in case he later returns to the University. Only rarely and upon the unqualified recommendation of the instructor is credit granted in such cases.

REQUIRED PHYSICAL FITNESS PROGRAM

The problem of physical fitness is one of the major problems of the war emergency. Because of this the University of Florida has constructed a physical fitness program to be required of all male students under 45 during their stay at the University. It should be emphasized that this program, while adopted as a part of the University's complete cooperation toward winning the war, is at the same time of importance in a sound educational program. It should lead to better work in the classrooms of the University as well as to better health and living for the individual student.

PHYSICAL EXAMINATION

Each male student under 45 entering for the first time will be required to furnish a report of physical examination on the form provided for this purpose by the University Physician before registration for the 1945 Summer Session can be completed. Additional physical examinations will be made by the University Physician when, in his opinion, such examinations are necessary.

THE PHYSICAL FITNESS PROGRAM REQUIRED OF ALL MALE STUDENTS UNDER 45

The program will be conducted in regularly scheduled sections meeting three periods per week. The registration forms for a male student under 45 cannot be accepted until he has arranged his schedule to include one of the regular sections. It is not possible to choose one section for one day and another for the other days. Students certified for restricted activity by the University Physician will be given special programs designed to fit their physical condition. Such students register for that section which fits their academic schedule and will meet at the time scheduled for the special program assigned for them.

ATTENDANCE REQUIRED

The following regulation concerning absences from scheduled meetings of the Physical Fitness Program will apply:

When a student has accumulated four absences which are not properly accounted for the student shall be on probation. When the student accumulates six absences unaccounted for the student may be reported to the Committee on Discipline with the recommendation that he be dropped from the University.

COLLEGES AND SCHOOLS

THE GRADUATE SCHOOL

The Graduate School offers work leading to the degrees of Master of Arts, Master of Arts in Architecture, Master of Arts in Education, Master of Science, Master of Science in Agriculture, Master of Science in Engineering, Master of Science in Pharmacy and Master of Education. In a few fields the Graduate School offers work for the Ph.D. For details consult the *Catalog.*

Passing grades for students registering in the Graduate School are A and B. All other grades are failing.

REQUIREMENTS FOR ANY MASTER'S DEGREE EXCEPT MASTER OF EDUCATION

Work Required.—The work for the master's degree shall be a unified program with a definite objective, consisting of twenty-four semester hours or the equivalent, at least half of which shall be in a single field of study and the remainder in related subject matter as determined by the student's Supervisory Committee. The principal part of the course work for the master's degree shall be designated strictly for graduates. However, in the case of related subject matter, courses numbered 300 and above may be offered upon the approval of the Supervisory Committee.

In all departments a general examination, either oral or written or both, covering the whole of the field of study of the candidate, or any part of it, is required. This may embrace not only the thesis and the courses taken but also any questions that a student majoring in that department may reasonably be expected to answer.

A thesis is required of all candidates. This thesis should be closely allied to the major subject. The title of the thesis should be submitted by the end of the first summer. The thesis itself should be completed and submitted in time to allow an interval of three full weeks between the day of submittal and the graduation day of the summer term.

The requirement of a reading knowledge of a foreign language is left to the discretion of the student's Supervisory Committee. If it is required the examination should be passed by the end of the third summer term, or when the work is half completed.

The work for the master's degree must be completed within seven years from the time of first registering for graduate work. For summer session students this means seven summers.

REQUIREMENTS FOR THE DEGREE OF MASTER OF EDUCATION

Description and Purpose.—In the summer of 1944 a program leading to a new degree, Master of Education, was established at the University. The requirements for this degree differ from the older degree of Master of Arts in Education in the following particulars:

1. It emphasizes professional preparation rather than research.
2. It permits but does not require the writing of a thesis.
3. The entrance requirements are more liberal.
4. The requirements for the degree are intended to be flexible enough to satisfy individual needs.
5. Students have more choice in selecting their work and participate more fully in mapping out their programs.

Since these things are so, not all the specific requirements can be stated in advance. Too much depends on individual problems and individual needs. In general, however, the requirements are as follows:

1. *Requirements for Admission.*—A student with a bachelor's degree from an accredited institution may be admitted to the Master of Education program whether or not he has previously earned any prescribed amount of credit in Education.

A student from a non-credited institution may be permitted to register as an unclassified student while his standing is being determined. Upon the recommendation of the general supervisory committee and the approval of the Dean of the Graduate School, credits earned while a student is unclassified (not to exceed one term) may count toward his degree.

2. *Admission to Candidacy.*—Admission to the work of this program is not a guarantee that the student will be admitted to candidacy for the degree. The general supervisory committee will recommend the student for admission to candidacy as soon as he has satisfied them of his qualifications. This will not be done in any case before the student has submitted his own proposed program for completing the degree. (See No. 6 below.)

3. *Residence Requirements.*—A minimum of six summer terms, or two semesters and one summer term, or the equivalent, is required as residence.

4. *Course Requirements.*—A minimum of thirty-six semester hours is the course requirement. Not more than six of these may be earned in any one summer term, and not more than fifteen in any one semester.

5. *The Requirement of Competence in Certain Areas.*—Instead of having a fixed requirement of majors and minors, each student will be required to show a reasonable amount of competence in certain areas of work as follows:

a. For all candidates for this degree. The area of educational theory and practice including the following subdivisions:
   (1) Educational foundations. Materials and experiences from biology, physiology, sociology, economics, basic materials from psychology and growth of children.
   (2) Civic education and improvement of social and personal qualities. Emphasis will be placed upon those qualities most closely related to effective work in teaching and school administration.
   (3) Educational psychology, child and adolescent growth.
   (4) Measurement, evaluation and guidance.
   (5) History and Philosophy of Education.
   (6) Curriculum construction and teaching.
   (7) Work on the student's own individual problems and projects.

b. For elementary school teachers and school administrators.
   (1) The subject matter of the elementary school.
   (2) Special problems of elementary education.

c. For secondary school teachers and administrators.
   (1) Subject matter of two or more teaching fields in the high school.
   (2) Special problems of secondary education.

d. For educational administrators.
   (1) Subject matter for educational administrators from economics, sociology, political science, school law, statistics.
   (2) Special problems in educational administration.

Competence is to be judged, (1) by oral or written, or by both oral and written, evaluation at the end of each term, and (2) by a comprehensive oral and written examination just before graduation.

The program is so arranged that each individual student may at any time request that his competence be determined in one of the areas represented in the program. In such cases a committee will be appointed and, if the committee after investigation, examination and conference, judges that the student has satisfactory competence in that area, no further work for the degree will be required in that area. This plan may be applied either to an entire area or to a part of it.

6. *Planning the Individual Student's Program.*—Each student is required to submit in writing his own proposed program for the degree. This must be done by the end of the first six weeks of residence. This develops with the aid of the instructional staff members and should grow out of the needs, interests, and desires of the student.

7. *Transfer of Credits.*—Credits earned prior to admission to the University will be governed by the same regulations that apply to all other graduate degrees. If recommended in advance by the general supervisory committee and approved by the Dean of the Graduate School, a student may be permitted to study with some competent teacher in another institution for one six-weeks summer term.

8. *One Year Teaching Experience.*—Each candidate must have had at least one year of teaching experience prior to the last summer term.

9. *Transfer Students.*—Students in Education who have started graduate work and who wish to study for the Master of Education degree may do so by arranging with the general supervisory committee to comply with the requirements of this program.

10. *Thesis.*—A thesis will not be required, but the student will be required to submit a considerable amount of written material in the form of reports, term papers, records of work accomplished, etc., all of this written material to be directed toward the integration, adaptation and utilization of the student's program.

11. *Foreign Language.*—A reading knowledge of a foreign language will not be required, but the effective use of the English language is expected of all candidates.

12. *The General Supervisory Committee.*—Students in this program will be directed by a general supervisory committee of five members, with Dean J. W. Norman as chairman. Other members of the staff will be called in to aid in individual cases.

In 1945 those students entering for the first time in the first term of the Summer Session will be expected to register for Education 540 and during the first term to submit in writing their proposed programs for all of the work which they are to do for the degree. Students entering for the first time in the second term are expected to registerd for Education 543 and during this term to submit complete programs for the work to be done for the degree.

SCHOOL OF ARCHITECTURE AND ALLIED ARTS

The Summer Session of 1945 will offer undergraduate work in Architecture.

Subjects will be taught by the project method. The student progresses individually according to his ambition, previous preparation, natural ability and application. Credits are given on acceptable work completed.

Credits obtained may be applied toward the degrees in Architecture and Building Construction. For detailed requirements for the several degrees offered by the School the student should consult the *Catalog.*

COLLEGE OF ARTS AND SCIENCES

Inasmuch as most of the subjects taught in the public schools are continued on the college level by departments in the College of Arts and Sciences, this college is of particular

service to teachers of the State. Others who profit particularly by the operation of the College of Arts and Sciences in the Summer Session are students of the College who wish either to make up deficiencies or to hasten graduation, and students of other collegiate institutions and of other colleges of the University who wish to complete basic arts and sciences requirements or electives.

CURRICULA IN ARTS AND SCIENCES

The College of Arts and Sciences offers curricula leading to the degrees of Bachelor of Arts, Bachelor of Science, Bachelor of Arts in Journalism, Bachelor of Science in Chemistry, and Bachelor of Science in Pharmacy. The curriculum leading to the degree of Bachelor of Science in Pharmacy is administered by the Director of the School of Pharmacy. (See School of Pharmacy.) The other curricula above are administered by the Dean of the College of Arts and Sciences. Only students who have completed the General College or its equivalent (as determined by the Board of Examiners and approved by the Dean of the College) are eligible to enter the curricula and become candidates for degrees.

THE DEGREES OF BACHELOR OF ARTS AND BACHELOR OF SCIENCE

Every student who wishes to be a candidate for one of these degrees should read carefully the description of requirements under the heading College of Arts and Sciences in the *Catalog*.

The degree of Bachelor of Arts will be conferred upon those who fulfill the specified requirements and whose majors center in one or more of the fields of ancient languages, Bible, economics, English, French, German, history, journalism, philosophy, political science, sociology, Spanish and speech. Similarly, the degree of Bachelor of Science will be conferred upon those who fulfill the specified requirements and whose majors center in one or more of the fields of biology, botany, chemistry, geology, and physics. Some students who major in geography, in mathematics or in psychology receive the degree of Bachelor of Arts while others receive the degree of Bachelor of Science, the degree being determined by the direction of the student's interests and accomplishments in his major work.

THE PRE-LAW COURSE

In cooperation with the College of Law, the College of Arts and Sciences offers combined academic-law curricula. For students who make adequate scholastic progress it is possible to earn the academic and law degrees in six years, of which two years are spent in the University College, one in the College of Arts and Sciences, and three in the College of Law.

PRE-MEDICAL AND PRE-DENTAL COURSES

Students who upon graduation from the University College are eligible for admission to the College of Arts and Sciences and who have not completed requirements for admission to medical and dental schools should continue and complete their pre-professional training in the College of Arts and Sciences. The student should select courses in accordance with requirements for admission to the particular school he wishes to enter, and should correspond with the dean of that school for information and advice.

COLLEGE OF BUSINESS ADMINISTRATION

The College of Business Administration operates during the Summer Session as during the regular terms. The courses offered appeal to students attending the regular terms

who wish to return during the Summer Session, and to teachers and others who wish to take courses to prepare for teaching commercial subjects in high schools or to prepare for teaching social sciences.

DEGREES AND CURRICULA

The College of Business Administration offers two degrees: The Bachelor of Science in Business Administration and the Bachelor of Science in Public Administration. To secure the first degree students must complete either the Curriculum in Business Administration Proper or the Curriculum in Combination with Law. To secure the second degree they must complete the Curriculum in Public Administration. The *Catalog* should be consulted for admission and curriculum requirements.

CURRICULUM IN COMBINATION WITH LAW

The College of Business Administration combines with the University College and the College of Law in offering a six-year program of study to students who desire ultimately to enter the College of Law. Students register during the first two years in the University College and the third year in the College of Business Administration. When they have fully satisfied the academic requirements of the College of Business Administration, they are eligible to register in the College of Law and may during their last three years complete the course in the College of Law.

COLLEGE OF EDUCATION

REQUIREMENTS FOR ADMISSION

For admission to the College of Education all students will be required to present a certificate of graduation from the University College, or its equivalent, and have the approval of the Admissions Committee of the College of Education.

GRADUATION WITH HONORS

For graduation *With Honors*, a student must earn an honor point average of at least 3.2 in the work of the Upper Division. For graduation with *High Honors*, a student must meet the following requirements: (1) attain an honor point average of at least 3.5 in the work of the Upper Division; (2) obtain the recommendation of the Faculty Committee which has supervised a special project or program of work for the student. A copy of detailed regulations governing graduation *With High Honors* may be obtained from the office of the Dean.

DEGREES AND CURRICULA

Only two degrees are offered in the College of Education—Bachelor of Arts in Education and Bachelor of Science in Education. For either degree the student is required to complete 66 semester hours, with an average of "C" or higher, after graduation from the University College.

CURRICULA IN ELEMENTARY EDUCATION LEADING TO THE DEGREE OF BACHELOR OF ARTS IN EDUCATION OR BACHELOR OF SCIENCE IN EDUCATION

I. For those beginning college work at the University of Florida or transferring from other institutions with less than the equivalent of two years' college credit.

Graduation from the University College.

Professionalized Subject Matter:	Credits
Children's Social Studies	3
Children's Science	2

Children's Literature	3
Health and Physical Education	2
Health Education	3
Public School Art	4
Public School Music	4
Handwriting	0 or 1

Education:
- CEn. 13—Introduction to Education
- En. 385—Child Development
- En. 386—Educational Psychology
- En. 421-422—Student Teaching
- En. 406—Elementary School Administration
- En. 471—Problems of Instruction (Elementary School)

*English ..... 15 credits

Total of at least 66 credits in the Upper Division.

II. For those transferring from other institutions with the equivalent of two or more years' college credit.

General Background:	Credits
C-1	8
C-2 or C-6	8 or 6
C-3	8
C-41	4 or 3

Professionalized Subject Matter:	Credits
Children's Social Studies	3
Children's Science	2
Children's Literature	3
Health and Physical Education	2
Health Education	3
Public School Art	4
Public School Music	4
Handwriting	0 or 1

Education:
- CEn. 13—Introduction to Education
- En. 385—Child Development
- En. 386—Educational Psychology
- En. 421-422—Student Teaching
- En. 406—Elementary School Administration
- En. 471—Problems of Instruction (Elementary School)

*English ..... 15 credits
*Social Studies ..... 15 credits
Enough electives to make a total of ..... 132 credits

CURRICULA IN SECONDARY EDUCATION LEADING TO THE DEGREE OF BACHELOR OF ARTS IN EDUCATION OR BACHELOR OF SCIENCE IN EDUCATION

I. For those beginning college work at the University of Florida or transferring from other institutions with less than the equivalent of two years' college credit.

Graduation from the University College.

Health Education	3 credits
Health and Physical Education	2 credits

*By permission of the Dean of the College of Education, these hours may be completed in other areas.

Education:
- CEn. 13—Introduction to Education
- En. 385—Child Development
- En. 386—Educational Psychology
- En. 401—School Administration
- En. 421-422—Student Teaching
- En. 471—Problems of Instruction (Secondary School)

Complete certification requirements in two fields. (See page 20.)

Electives, if needed, to make a total of 66 semester hours completed in the Upper Division.

II. For those transferring from other institutions with the equivalent of two or more years' college credit.

General Background:	Credits
C-1	8
C-2 or C-6	8 or 6
C-3	8
C-41	4 or 3
Speech	3 or 4
Health Education	3
Health and Physical Education	2

Education:
- CEn. 13—Introduction to Education
- En. 385—Child Development
- En. 386—Educational Psychology
- En. 401—School Administration
- En. 421-422—Student Teaching
- En. 471—Problems of Instruction (Secondary School)

Complete certification requirements in two fields. (See page 20.)

Electives, if needed, to make a total of ..... 132 credits

THE UNIVERSITY COLLEGE

The University College, organized in 1935, administers the basic preparatory work of the freshman and sophomore years.

In the past our colleges have not taught science for the layman, the humanities for the non-specialist, nor social studies for all citizens of the Republic. Our new program at the University of Florida is based upon the premise that in addition to the introductions to specialized fields, the first two years of college should offer the student something meaningful, as well as useful in planning immediate next steps.

Study in the major subject areas may begin, first, with memorizing the many diverse factual elements; second, with the conceptual approach; third, with practical applications. Now no one procedure is *right* with the others *wrong;* they must be used together. However, the point of emphasis is important. Too often in the past we have spent the major part of beginning study memorizing many diverse facts. This accumulation of facts was worthwhile if the student continued in college long enough to get meaning and significance, but over half of the entering freshmen group dropped out of school with little more than the memorized "foundations" in several subjects. Troubled by this, many in the academic world have, in defense, argued that these meaningless elements were of major value to all, even though they led nowhere. A vague concept of disciplinary value was invented.

We are setting up a comprehensive program as rapidly as our facilities permit. Our first group of comprehensive courses take the conceptual approach mentioned above. Thus every student, with hypotheses to be worked out by advanced study whether this be in academic halls or in the work-a-day world, has something of value. These courses are designed to give men a common core of knowledge and understandings that all need as citizens. And certainly the educated man is not one who is lost in all the broad subject areas of human knowledge and endeavor except his own.

Although a freshman does not register in a professional school or college on his first day at the University, he may start toward his tentative professional objective. He does not "wait" until he has finished a general education program to begin professional study. The program of the General College is an integral part of the curricula of the other schools and colleges. If he has not chosen a profession, he is not urged to *guess* on registration day. The decision is permitted to come in a normal manner; i.e., as a conclusion from the facts made available in his individual program. A particular program may follow one of several patterns. Comprehensive study in the following areas is required of all.

1. Government, Economics, Sociology, and History, *The American Citizen and His Government.*
2. The Utilization and Understanding of the Physical World, *Physical Science*
3. Communication, *Reading, Speaking, and Writing*
4. Propaganda Analysis, *Straight Thinking*
   Mathematics, *Fundamental Mathematics*
5. The Humanities, *The American Citizen in World Civilization*
6. Fundamental Principles of Biological Development, *The Biological World*
7. Electives (subjects from Upper Division departments of the field or fields under consideration for advanced work)

GUIDANCE

Since the purpose of general education is to replace fragmentation, our program absorbs much of the responsibility for guidance. Every subject or course of the University College program is designed to *guide* the student. During the time he is studying the several great areas of human understanding and achievement, he is also taking special subjects to test aptitude, interests, and ability. The program is adjusted to the individual, but there must be a more substantial basis for adjustment than just a chance whim of the moment. The material of the comprehensive courses is selected and tested with *guidance* as a primary function. While, of necessity, we must look forward to distant goals, the University College is trying to present materials that are directly related to life experiences and which will immediately become a part of the student's thinking and guide him in making correct *next steps.* Thus the whole program—placement tests, progress reports, vocational aptitude tests, selected material in the comprehensive courses, student conferences, provisions for superior students, adjustment for individual differences, election privileges, and comprehensive examinations—all are parts of a plan designed to *guide* students.

Thus guidance is not attempted at one office by one individual with a small staff. The whole drive of the University College program is one of directing the thinking of the student. While the necessary correlation and unification is attempted at the University College Office, throughout the University College period, students consult Upper Division deans and department heads to discuss future work. During the last month of each school year these informal conferences are concluded by a scheduled formal conference at which each student fills out a pre-registration card for the coming year.

The freshman placement tests are designed to measure one's ability to handle college work. They are not high school subject matter memory tests. Consequently veterans or others who have more than the usual high school background may have greater choice, and with advisors work out programs to meet individual needs.

BEGINNING STUDENTS

Freshmen will be able to complete nearly half of the program for the first year by attending the entire twelve weeks of the Summer Session. Suggestions as to Summer Programs are listed below. These should be used in conjunction with the regular University *Catalog* and after consulting the Dean of the University College or a member of the Advisors Group.

1. For the majority of students—any combination of the following 3 and 4 hour courses totalling not more than nine hours per term.

First Term—	*Second Term—*
C-11 American Institutions	C-12 American Institutions (cont'd)
C-21 The Physical Sciences	C-22 The Physical Sciences (cont'd)
C-31 Freshman English	C-32 Freshman English (cont'd)
C-42 Fundamental Mathematics	C-41 Practical Logic
C-61 Biological Science	C-62 Biological Science (cont'd)

(See description of courses, page 40, for number of hours' credit.)

2. For certain special groups the following courses of study are suggested.

A. Students considering Pre-Medical or Pre-Dental Programs:

First Term—	*Second Term—*
C-11 American Institutions	C-12 American Institutions (cont'd)
or	or
C-31 Freshman English	C-32 Freshman English (cont'd)
or	or
C-61 Biological Science	C-62 Biological Science (cont'd)

And one or two of the following each term to make a total of not more than nine hours.

C-42 Fundamental Mathematics	C-41 Practical Logic
Cy. 101 General Chemistry	Cy. 102 General Chemistry (cont'd)
Bly. 101 General Animal Biology	Bly. 102 General Animal Biology

B. Students considering Engineering who have completed three or four years of high school mathematics:

First Term—	*Second Term—*
CMs. 23 Basic Mathematics	CMs. 24 Basic Mathematics (cont'd)
And one of the following:	
C-11 American Institutions	C-12 American Institutions (cont'd)
C-31 Freshman English	C-32 Freshman English (cont'd)

These are not inflexible programs; they may be varied upon consultation with the Dean or an Advisor if there is a particular need or evidence of ability to carry more advanced courses.

TEACHERS WHO EXPECT TO TEACH IN GRADES 1-6

The following courses are required to complete the regular program of the University College and to meet the requirements of the State Department of Education for an Undergraduate Certificate in Elementary Education, as stated in the State Department's 1944 Bulletin A, *Certification of Teachers.*

Completion of the basic comprehensive courses and at least twenty-two semester hours from the other courses will entitle the student to the Certificate of Associate of Arts and admission to the College of Education, where the remainder of the courses may be completed for the Undergraduate Certificate and also apply on the Bachelor's degree.

Basic Comprehensive Courses		Minimum Credit
C-1	American Institutions	8
C-2	The Physical Sciences	6
C-3	Freshman English	8
C-41	Practical Logic	3
C-42	Fundamental Mathematics	3
C-5	The Humanities	8
C-6	Biological Science	6

Additional Courses Required for Undergraduate Certificate		Minimum Credit
CEn. 13	Introduction to Education	
	or	3
En. 305	Development and Organization of Education	
En. 385	Child Development	
	or	3
En. 386	Educational Psychology	
En. 471	Problems of Instruction	6
*En. 421	Student Teaching	
	or	3
*En. 422	Student Teaching	
Gl. 301	Children's Science	
	or	2
Gl. 302	Children's Science	
Eh. 391	Children's Literature	3
Scl. 301	Children's Social Studies	
	or	3
Scl. 302	Children's Social Studies	
	Public School Music	4
	Public School Art	4
BEn. 97	Handwriting	1
HPl. 387	Health Education	3
HPl. 373	Methods and Materials in Physical Education	3
	Geography	3
**	History or Political Science	6

Special Program for Undergraduate Certificate for Elementary School Teachers

The following courses are required to complete a program offered at the University and especially approved by the State Department of Education leading to an undergraduate certificate for elementary teachers. Completion of this program does not qualify a student for the Certificate of Associate of Arts from the University of Florida. The Certificate is awarded only to those who satisfactorily complete the comprehensive examinations in all the basic courses of the University College.

General Preparation Requirements		Minimum Credit
C-1	American Institutions	8
C-2	The Physical Sciences	
	or	6
C-6	Biological Science	
C-3	Freshman English	8
C-5	The Humanities	8
HPl. 387	Health Education	3
HPl. 373	Methods and Materials in Physical Education	3

*Not required of those who will have had 16 months actual teaching experience within the three year period immediately preceding the completion of the application for teachers certificate.

**Not required of those who have passed the State Department of Education examination on the Constitution.

Professional Requirements			Minimum Credit
CEn.	13	Introduction to Education or	3
En.	305	Development and Organization of Education	
En.	471	Problems of Instruction	6
*En.	421	Student Teaching	3
En.	385	Child Development	3
Gl.	301	Children's Science	2
Eh.	391	Children's Literature	3
Scl.	301	Children's Social Studies	3
		Public School Music	4
		Public School Art	4
**		History or Political Science	6

Note: Total for all courses must not be less than 60 semester hours.

COLLEGE OF ENGINEERING

The College of Engineering is offering several courses during the summer session in various departments so that students may graduate in a minimum of time. Many other courses included in the engineering curricula, such as mathematics and physics, are also available. During the summer months the engineering student may also take subjects to meet elective requirements.

Students entering the University for the first time may find it to their advantage to enroll in mathematics, and either Freshman English, American Institutions or General Chemistry. Students having completed one year at the University may take courses in calculus and physics. For those students who have completed calculus and physics, applied mechanics is suggested. Elective subjects in mathematics, physics and the humanities are recommended to all students.

For advanced students, special laboratory work in connection with the Florida Engineering and Industrial Experiment Station may also be secured.

Students who contemplate registration in the College of Engineering and those who are already registered in this college should confer about their schedules with the department heads and the dean as soon as possible.

COLLEGE OF LAW

First Term—June 1 - July 20

Second Term—July 21 - September 7

The purpose of the College of Law is to impart a thorough scientific and practical knowledge of law and thus to equip students to take advantage of the opportunities in this field. Since 1927 the College has operated during the Summer Session. Courses offered during the regular terms are rotated. Some courses not given during the regular terms are offered in the Summer Session. The variety of courses is sufficient to enable students of different types to carry a full load, and appeal to a wide range of students, and the College expects to offer courses during the Summer Session of 1945.

*Not required of those who will have had 16 months actual teaching experience within the three year period immediately preceding the completion of the application for teachers certificate.

**Not required of those who have passed the State Department of Education examination on the Constitution.

A GUIDE TO COURSES LISTED IN THIS CATALOGUE

The course offerings are listed separately for each term, the comprehensive courses first, followed by the departmental courses in alphabetical order by department name. In registration the student should always use the departmental abbreviation and course number, not abbreviations of the course title.

Some of the certification requirements listed in the literature of the State Department may not be represented by the same titles in this catalogue. To facilitate finding the proper course descriptions for such fields, the following guide is provided:

Elementary Teachers

General Preparation—the basic comprehensive courses of the University College (C-1, C-2, C-3, C-41, C-42, C-5, and C-6)

Elementary Science—listed under General Science (Gl. 301)

General Psychology—Psy. 201 listed under Psychology

Child and Educational Psychology—listed under Education (En. 385, En. 386)

Children's Literature—listed under English (Eh. 391)

Social Studies in Elementary Grades—listed under Social Studies (Scl. 301 and Scl. 302)

Handwriting—listed under Business Education (BEn. 97)

Health Education—listed under Health and Physical Education (HPl. 387)

Secondary Teachers

Commercial Subjects—listed under Business Education and under Economics and Business Administration

English—C-3 and courses listed under English and Speech

Mathematics—C-42, and courses listed under Mathematics

Science—C-2, C-6, and courses listed under Chemistry, Biology, and Physics

Social Studies—C-1 and courses listed under Geography, History, Political Science, Economics, Social Studies, and Sociology

Conservation requirement may be met with any of the following courses: C-1, C-2, C-6 (listed under comprehensive courses), Gpy. 385 or Gpy. 387 or Es. 382 (listed under Economics).

DEPARTMENTS OF INSTRUCTION

AND SCHEDULE OF COURSES

First Term

All classes ordinarily meet for fifty minutes. Classes scheduled to meet daily meet Monday through Saturday.

Some courses are indicated as being offered by the project method. Students taking these courses will do independent work under the supervision of the instructor, with no regular class meetings unless time of meeting is listed in the schedule.

Students not registered in the Graduate School will not be permitted to register for graduate courses unless they secure written approval from the Dean of the Graduate School and the instructor concerned.

COMPREHENSIVE COURSES

Comprehensive examinations for University College students in C-1, C-2, C-3, C-5, and C-6 will be given and will cover the work of both terms. Students should consult official announcements of the Board of University Examiners for details.

C-11.—American Institutions. 4 credits.
(Register for one section only.)

Section 10 10:00 daily and 4:00 M. T. Th. F. Pe-101. PRICE and JOUBERT.

Section 11 11:00 daily and 5:00 M. T. Th. F. Pe-101. JOUBERT and THOMASON.

C-12.—American Institutions. 4 credits.
Section 20 9:00 daily and 3:00 M. T. Th. F. Pe-101. PRICE.

Designed to develop and stimulate the ability to interpret the interrelated problems of the modern social world. The unequal rates of change in economic life, in government, in education, in science, and in religion are analyzed and interpreted to show the need for a more effective co-ordination of the factors of our evolving social organization of today. Careful scrutiny is made of the changing functions of social organizations as joint interdependent activities so that a consciousness of the significant relationships between the individual and social institutions may be developed, from which consciousness a greater degree of social adjustment may be achieved.

C-21.—The Physical Sciences. 3 credits.
8:00 daily and 2:00 T. Th. Bn-201. GADDUM.

An attempt to survey the phenomena of the physical universe with particular reference to man's immediate environment; to show how these phenomena are investigated; to explain the more important principles and relations which have been found to aid in the understanding of them; and to review the present status of man's dependence upon the ability to utilize physical materials, forces, and relations. The concepts are taken mainly from the fields of physics, chemistry, astronomy, geology, and geography, and they are so integrated as to demonstrate their essential unity. The practical and cultural significance of the physical sciences is emphasized.

C-31.—Freshman English. 4 credits.
(Register for one Discussion Section and one Laboratory Section.)

Discussion Sections:

10 7:00 daily and 1:00 T. Th. La-203. WISE.
11 9:00 daily and 3:00 T. Th. La-203. MORRIS.
12 10:00 daily and 4:00 T. Th. La-203. CONGLETON.

Writing Laboratory Sections:
101 10:00 to 12:00 T. Th. La-209. MORRIS.
102 3:00 to 5:00 M. F. La-209. MORRIS, CLARK.

C-32.—Freshman English. 4 credits.
(Register for the Discussion Section and Laboratory Section.)

Discussion Section:
20 11:00 daily and 5:00 T. Th. La-203. MOUNTS.

Writing Laboratory Section:
120 1:00 to 3:00 W. F. La-209. CLARK.

Reading, Speaking and Writing.

Designed to furnish the training in reading, speaking and writing necessary for the student's work in college and for his life thereafter. This training will be provided through practice and counsel in oral reading, in silent reading, in logical thinking, in fundamentals of form and style, in extension of vocabulary and in control of the body and voice in speaking. Students will be encouraged to read widely as a means of broadening their interests and increasing their appreciation of literature.

C-41.—Practical Logic. 3 credits.
9:00 daily and 3:00 T. Th. La-201. LITTLE.

The straight and crooked thinking of war propaganda will be studied in many exercises.

Both in private life and vocational life man is faced with the necessity of thinking. In this course an attempt is made to stimulate the student (1) to develop his ability to think with greater accuracy and thoroughness, (2) to be able to use objective standards necessary in critically evaluating his own thinking process and product as well as the conclusions reached by others, and (3) to record both process and product of thinking in effective language. The material used applies to actual living and working conditions. The case method is used to insure practice, many illustrations are given, and numerous exercises are assigned.

C-42.—Fundamental Mathematics. 3 credits.
10:00 daily and 4:00 T. Th. Pe-1. KOKOMOOR.

A practical treatment covering the fundamentals of manipulation and analysis in algebra, geometry and related fields. The development of computational skills especially recommended by both Army and Navy for aviation cadets. Not open to students who have completed General Mathematics, Trigonometry, or Basic Mathematics.

C-51.—The Humanities. 4 credits.
(Register for the Lecture Section and the Discussion Section.)
Lecture Section 1: 12:00 M. T. W. F. Aud. GLUNT.
Discussion Section 10: 8:00 daily. La-212. HANNA.

Our heritage; the World Conflict of Philosophies and Cultures.

A study of man as he has expressed himself in literature, philosophy, the graphic and plastic arts, and music. Objectives—that the student shall increase his understanding and enjoyment of the arts, learn something of the methods of serious and systematic thinking, gain a more thorough understanding of the world in which he lives and of the rich and abundant experience it has to offer, and evolve for himself a serviceable philosophy of life. The main body of the course is devoted to a consideration of the basic ideas which have been most significant in man's cultural development (classicism, romanticism, realism and idealism) as expressed in drama, poetry, fiction, music and the graphic and plastic arts.

C-61.—Biological Science. 3 credits.
(Register for the Lecture Section and the Discussion Section.)
Lecture Section 1: 9:00 daily. Sc-101. HUBBELL.
Discussion Section 10: 3:00 T. Th. Sc-101. HUBBELL.

The biological problems and principles associated with the organism's role as: (1) a living individual, (2) a member of a race, (3) a product of evolutionary processes, and (4) a member of a socially and economically inter-related complex of living organisms, supply the main sequence and material of the course.

ARCHITECTURE

THESIS IN ARCHITECTURE

Ae. 71A.—Thesis. HANNAFORD. Prerequisite: Completion of all other requirements for the degree.

A comprehensive final project in architecture based on a program submitted by the student and approved by the faculty. The program must be approved in time to permit not less than 14 weeks for the study of the problem. The presentation will include the architectural, structural, and mechanical equipment drawings, and portions of the specifications. Models and written descriptions may accompany the solution. One project. Nominal time, 48 hours a week.

BIBLE

Be. 304.—World's Great Religions. 2 credits.
1:00 daily. Pe-209. BRISTOL.

A study of Buddhism, Zoroastrianism. Judaism, Christianity, Islam, showing some similarities and dissimilarities and contribution of each religion.

BIOLOGY

Bly. 101.—An Introduction to Vertebrate Zoology. 3 credits. Co- or prerequisite C-6.
10:00 daily. Sc-101. HOBBS.
Laboratory: 1:00 to 5:00 M. and 7:00 to 10:00 P.M. W. Sc-10.

A laboratory course based chiefly on the morphology, physiology and embryology of the frog. Designed to parallel C-6 and with the latter to provide a satisfactory prerequisite for Bly. 209. This course in combination with C-6 and Bly. 209 provides the minimum premedical requirement in the Biological Sciences.

Bly. 133.—Common Animals and Plants of Florida. 3 credits.
11:00 daily and 5:00 T. Th. Sc-101. LAESSLE.

Designed to provide a recognition of and an acquaintance with some of the more common animals and plants of Florida. Especially planned to prepare teachers to answer the question, "What animal—or what plant—is that?" Individual work in the field and the making of personal reference collections of plants and animals are encouraged.

Bly. 209.—Comparative Vertebrate Anatomy. 4 credits.
10:00 daily and 4:00 T. Th. Sc-111. SHERMAN.
Laboratory: 1:00 to 5:00 M. and 7:00 to 10:00 P.M. W. Sc-107.

The morphology and classification of chordate animals.

BUSINESS ADMINISTRATION

(See Economics and Business Administration)

BUSINESS EDUCATION

Note: These courses do not count as credit in Education.

BEn. 81.—Introductory Typewriting. 2 credits.
To arrange. Yn-305. ROWE.

Introduction to touch typewriting: practice upon personal and business problems.

BEn. 91.—Introductory Shorthand. 2 credits.
To arrange. Yn-306. ROWE.

Introduction to Gregg Shorthand by the functional method.

BEn. 97.—Handwriting. 1 credit.
7:00 M. T. W. F. Yn-306. ROWE.

CHEMISTRY

Cy. 101.—General Chemistry. 4 credits. The first half of the course Cy. 101-102.
11:00 daily and 5:00 T. Th. Ch-212. JACKSON.
Laboratory: 1:00 to 5:00 W. and 7:00 to 10:00 P.M. Th. Ch-130.

Fundamental laws and theories of chemistry, and preparation and properties of the common non-metallic elements and their compounds.

Cy. 201.—Analytical Chemistry. 4 credits.
8:00 daily and 2:00 T. Th. Ch-212. JACKSON.
Laboratory: 1:00 to 5:00 W. and 7:00 to 10:00 P.M. Th. Ch-230.

Theoretical principles and laboratory technique involved in the qualitative detection of the common metals and acid radicals.

Cy. 301.—Organic Chemistry. 4 credits. The first half of the course Cy. 301-302
9:00 daily and 3:00 T. Th. Ch-212. LEIGH.
Laboratory: 1:00 to 5:00 W. and 7:00 to 10:00 P.M. Th. Ch-230.

Preparation and properties of the various aliphatic compounds.

CIVIL ENGINEERING

Cl. 329.—Higher Surveying. 12 weeks. 5 credits. Prerequisite: Cl. 226.
1:00 to 6:00 M. W. F. and 8 other hours per week to arrange.
Hl-303. GAGER.

This course runs throughout the 12 weeks, and no credit will be given unless the entire course is completed.

Field and office practice in traverse, topographic mapping, base line measurement, triangulation, practical astronomy, stream gauging and hydrographic surveying, precise leveling and adjustments of instruments. Breed and Hosmer, *The Principles and Practice of Surveying, Volume II.*

Cl. 440.—Industrial Hygiene. 3 credits. Prerequisites: Cy. 102 and Ps. 102 or 206.
9:00 daily and 3:00 T. Th. Hl-101. GAGER.

Lectures on the causes and effects of industrial processes on the human body and the engineering methods of control. Special emphasis will be placed on the engineer's responsibility for the health of his employees.

ECONOMICS AND BUSINESS ADMINISTRATION

Note: Courses designated by Es. are Economics courses, those designated by the letters Bs. are Business Administration courses.

***CEs. 131.—Economic Foundations of Modern Life.** 3 credits. Prerequisite: Sophomore standing.
8:00 daily and 2:00 T. Th. Pe-112. ELDRIDGE.

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*This course is a unit. To complete it both terms of the summer session are required. Students may take one term without the other only with consent of the instructor.

Emphasis on the functioning of the economic system. Economic organization and institutions as parts of the economic order in their functional capacities. The understanding of economic principles and processes, especially those relating to value, price, cost, rent, wages, profits, and interest, insofar as such knowledge is necessary in understanding the economic situation of the present day. The evaluation of economic forces and processes in terms of their contribution to social well being. Prerequisite for advanced standing in Economics and Business Administration.

CBs. 141.—Elementary Accounting. 3 credits.
7:00 daily and 1:00 T. Th. La-204. BEIGHTS.

Designed to provide the basic training in business practice and in accounting. A study of business papers and records; recording transactions; preparation of financial statements and reports. Prerequisite for advanced standing in Economics and Business Administration.

CEs. 15.—Elementary Statistics. 3 credits.
10:00 daily and 4:00 T. Th. La-204. ANDERSON.

The statistical method as a tool for examining and interpreting data; acquaintance with such fundamental techniques as find application in business, economics, biology, agriculture, psychology, sociology, etc.; basic preparation for more extensive work in the field of statistics. Prerequisite for advanced standing in Economics and Business Administration.

Bs. 311.—Accounting Principles. 3 credits. Prerequisite: CBs. 141-142.
8:00 daily and 2:00 T. Th. La-204. BEIGHTS.

A study of the mechanical and statistical aspects of accounting; books of record; accounts; fiscal period and adjustments; working papers; form and preparation of financial statements; followed by an intensive and critical study of the problems of valuation as they affect the preparation of the balance sheet and income statements.

Es. 327.—Public Finance. 3 credits.
7:00 daily and 1:00 T. Th. Pe-101. BIGHAM.

Principles governing expenditures of modern government; sources of revenue; public credit; principles and methods of taxation and of financial administration as revealed in the fiscal systems of leading countries.

Es. 351.—Elements of Transportation. 3 credits. Prerequisite: CEs. 13.
9:00 daily and 3:00 T. Th. Pe-102. BIGHAM.

Significance, history, facilities, geography, economic characteristics, elementary rate making, and development of regulation of all important forms of intercity transportation.

Es. 372.—Labor Economics. 3 credits. Prerequisite: CEs. 13.
8:00 daily and 2:00 T. Th. Pe-101. CHACE.

Labor problems: insecurity, wages and income, hours, substandard workers, industrial conflict; attempts to solve labor problems by employees; unionism in its structural and functional aspects; attempts to solve labor problems by employers: personnel management, employee representation, employers' associations; attempts to solve labor problems by state: protective labor legislation; laws relating to settlement of industrial disputes.

Es. 382.—Utilization of Our Resources. 3 credits.
9:00 daily and 3:00 T. Th. La-204. JOUBERT.

A comprehensive review of the natural and human resources of the United States followed by an intensive study of the wise and wasteful practices of exploitation and utilization of these resources. A study of the human and economic significance of the principles of conservation with special reference to Florida.

Bs. 401.—Business Law. 3 credits.
9:00 daily and 3:00 T. Th. Lw-202.

Contracts and agency; rights and obligations of the agent, principal, and third party; termination of the relationship of agency. Conveyances and mortgages of real property; sales and mortgages of personal property; the law of negotiable instruments.

Es. 404.—Government Control of Business. 3 credits. Prerequisite: CEs. 13.
11:00 daily and 5:00 T. Th. La-204. ANDERSON.

A study of the evolution of economic control; an examination of the effectiveness of *laissez faire* control in the American economy; legality of and chief methods of effectuating governmental control; the development of the relationship between government and non-public utility monopolies; Federal Trade Commission control of competitive practices; a critical appraisal of recent developments in the field of government control.

Es. 446.—The Consumption of Wealth in Time of War. 3 credits.
10:00 daily and 4:00 T. Th. La-201. MATHERLY.

Problems of rationing; use of family budgets; price ceilings; and other problems of interest to consumers in a war-time economy.

Courses by Project Method. BIGHAM, BEIGHTS, MATHERLY, and ELDRIDGE.

Students may register for certain upper division courses and complete them by the individual project method. Information about these courses may be obtained from the office of the Dean of the College of Business Administration.

EDUCATION

CEn. 13.—Introduction to Education. 3 credits.
9:00 daily and 3:00 T. Th. Yn-134. SIMMONS.

Principles upon which present day education is based.

En. 261.—Planning School Programs. 3 credits.
1:00 to 4:00 M. W. F. Yn-317. NUTTER and JONES.

Provision for individual teachers, principals, representative faculty groups, and total faculty groups to make individual teacher plans or total school plans for their own schools.

En. 305.—Development and Organization of Education. 3 credits.
7:00 daily and 1:00 T. Th. Yn-134. BARRY.

An attempt to interpret the role of the public school in our rapidly changing society.

En. 306.—Vocational Education. 3 credits.
9:00 daily and 3:00 T. Th. Yn-132. GARRIS.

Development, function, and scope of vocational, agricultural, home economics, trade and industrial, and commercial education as provided for by the National Vocational Education Act of Congress.

En. 317.—Measurement and Evaluation. 3 credits.
8:00 daily and 2:00 T. Th. Yn-218. CUMBEE.

A study of the basic principles and methods of measurement and evaluation of school practices.

En. 385.—Child Development. 3 credits.
10:00 daily and 4:00 T. Th. Yn-218. CUMBEE.

Designed to acquaint the student with the growth and development of children into mature personalities. The findings of recent research will be studied through outside reading, class discussion and observation. Methods of evaluation of child growth will be included.

En. 401.—School Administration. 3 credits.
11:00 daily and 5:00 T. Th. Yn-134. LEPS.

Problems peculiar to schools in Florida; the supervising principal, qualifications, relation to superintendent, boards, teachers, pupils, patrons, and community; adapting the school to the child's needs; business practices.

En. 421.—Student Teaching. 3 credits. The first half of the course En. 421-422. To arrange. LEWIS.

The student is given practice in the art of teaching by actually taking over responsibility for the teaching-learning situation and putting into operation under direction and supervision the theories, methods, materials, and teaching techniques acquired during his junior year through observation and participation.

En. 422.—Student Teaching. 3 credits. The second half of the course En. 421-422. To arrange. LEWIS.

En. 471.—Problems of Instruction. 6 credits.
9:00 to 11:00 daily and 3:00 to 5:00 T. Th. Yn-150. MCLENDON and HOUGH.

An opportunity will be given the teacher for studying curriculum practices and developing tentative plans for classroom experience in the community of the particular teachers. Evaluation in various fields will be studied. Problems in teaching reading and the language arts will be stressed.

En. 472.—Methods and Organization in Industrial Arts. 3 credits.
Project method. Yn-316. GOTTSHALL.

Organization of industrial arts materials for the various grades and schools; planning courses of study, selecting equipment and supplies; study of aims and objectives of industrial arts. A study of the utilization of current acceptable teaching techniques and devices.

GRADUATE COURSES

En. 540.—Foundations of Education. Credit varies; maximum credit 6.
10:00 to 12:00 and 4:00 to 5:00 daily. Yn-315. MEAD, NORMAN and W. H. WILSON.

En. 541.—Problems in Child and Adolescent Growth and Development and Educational Psychology. Credit varies; maximum credit 6. CRAGO.

En. 546.—Problems of Curriculum Construction and Teaching. Credit varies; maximum credit 6. W. R. WILLIAMS.

En. 547.—Problems in Elementary Education, Principles and Practices in Grades 1-6. Credit varies; maximum credit 6. STEVENS, GRACE A.

En. 549.—Problems in School Administration. Credit varies; maximum credit 6. CAMPBELL and LEPS.

En. 567.—Problems in Agricultural Education. Seminar. 3 credits.
10:00 daily and 4:00 T. Th. Yn-132. GARRIS.

ELECTRICAL ENGINEERING

El. 443.—Industrial Electronics. 3 credits. Prerequisites: El. 342, El. 344.
8:00 daily and 2:00 T. Th. Eg-213. E. F. SMITH.

Electronic tubes and their application to industry.

El. 449.—Theory of Electric Circuits. 3 credits. Prerequisites: El. 342, El. 344.
9:00 daily and 3:00 T. Th. Eg-213. E. F. SMITH.

Networks; resonance phenomena; the infinite line; reflections; filters; inductive interference, coupled circuits; impedance matching.

ENGLISH

The courses in English, advanced as well as introductory, have one common purpose: to enrich the student's experience by intimate association with those writings in our language, past and present, which contribute most to meaningful living. The central aim is to help persons of all vocations acquire some appreciation of our literary heritage, essential to a cultivated outlook on life, and to help persons of all vocations acquire greater facility in the knowledge and use of our language. The aim is thus twofold: education for enlightened leisure and for enlightened lahor.

Suggestions to Teachers: The Department recommends as the best possible preparation for the teaching of English the following fundamental courses, or their equivalents. and urges all who have not had equivalent courses to take them at the earliest opportunity: CEh. 37-38, CEh. 313-314, Eh. 301-302, Eh. 305, Eh. 399 and Eh. 401-402. In all courses intended primarily for teachers, special consideration will be given to appropriate topics and problems relating to the teaching of English in public schools. (See the course descriptions below.)

For elementary school teachers the Department suggests Eh. 391, at least one semester of CEh. 35-36, CEh. 37-38, or CEh. 313-314, and Eh. 399.

CEh. 38.—Literary Masters of England. 3 credits.
11:00 daily and 5:00 T. Th. La-212. CONGLETON.

The most interesting and significant English writers from the beginning to the 19th century are read and discussed primarily for an appreciation of their art and their outlook on life. For teachers, particular attention will be devoted to writers and works stressed in junior and senior high school English courses, and to methods of presentation. May be taken for credit without CEh. 37.

Eh. 302.—Shakespeare. 3 credits.
10:00 daily and 4:00 T. Th. La-210. ROBERTSON.

The primary design is to increase the student's enjoyment and appreciation of the plays. Devoted chiefly to the great tragedies, including *Hamlet, Othello, King Lear, Macbeth,* and *Anthony and Cleopatra.* Eh. 301 and 302 may be taken in reverse order, or either one without the other.

Eh. 355.—Business Writing. 3 credits.
10:00 daily and 4:00 T. Th. La-212. CLARK.

A general course in business letter and report writing. The more common types of business letters are written, such as letters of application, letters of credit, and sales letters. Reports are written upon projects of the students' special interest.

This course is especially designed to meet the needs of students in Business Administration and allied fields. Prerequisite: C-3.

Eh. 391.—Children's Literature. 3 credits.
9:00 daily and 3:00 T. Th. La-212. WISE.

Designed to arouse and satisfy a genuine interest in children's books apart from school textbooks, to aid the student to obtain a better working knowledge of this literature, and to make him more aware of degrees of excellence in content and form.

Eh. 402.—American Literature. 3 credits.
8:00 daily and 2:00 T. Th. La-210. MOUNTS.

A general survey of American literature (all types and all regions) from Whitman to the present, with the major emphasis upon such writers as Whitman, Howells, James, Twain, Lanier, the local colorists, Wharton, Cathers, Glasgow, Lewis, Robinson, Frost, and O'Neill.

Eh. 409.—Chaucer. 3 credits.
11:00 daily and 5:00 T. Th. La-210. ROBERTSON.

Designed to help the student appreciate Chaucer as a story teller, as a wise, humorous, and penetrating observer of human life, and as a great poet.

GRADUATE COURSES

Eh. 502.—American Literature. 3 credits.
8:00 daily and 2:00 T. Th. La-210. MOUNTS.

Eh. 509.—Chaucer. 3 credits.
11:00 daily and 5:00 T. Th. La-210. ROBERTSON.

Eh. 530.—Individual Work. Credit arranged.
To arrange. STAFF.

Provision will be made for graduate students who desire to supplement the regular courses by individual reading or investigation under guidance. Students will be helped to plan a definite program, and will meet a member of the department staff in frequent conferences.

FRENCH

CFh. 33.—First-Year French. 3 credits. The first half of the course CFh. 33-34. Open to students who have had no previous work in French.
9:00 daily and 3:00 T. Th. Bu-205. BRUNET.

A beginning course basic for further study. The objective is a moderate proficiency in speaking and reading the language, with specific emphasis on the oral approach.

GRADUATE COURSE

Fh. 530.—Individual Work. Variable credit.
To arrange. BRUNET.

Fh. 530 offers graduate students an opportunity to study, for credit, certain phases of French literature, language, and civilization for which there are no regular course offerings. Such individual work may be elected for additional credit in subsequent sessions. Students will be helped to plan a definite program, and will meet the instructor for conferences.

GENERAL SCIENCE

Gl. 301.—Children's Science. 2 credits.
7:00 daily. Yn-142. GOETTE.

The content of elementary science, together with its organization for use both in the integrated program and in the departmentalized school. Consideration given to the interests and experiences of children. Investigation of instructional aids that will assist teachers of the elementary school to meet the needs of individual children.

GEOGRAPHY

Gpy. 201.—Geography of the Americas. 3 credits.
8:00 daily and 2:00 T. Th. Yn-140. DURRANCE.

A regional survey of the lands and peoples of Anglo and Latin America; location, surface features, climate, ancient civilizations, European settlement, natural resources and economic development; an analysis of the growth of present-day nations and their economic, political and social interdependence. Introductory to study of geography, history, languages and Inter-American affairs.

GEOLOGY

Gy. 416.—Advanced Historical Geology. 3 credits.
10:00 daily and 4:00 T. Th. Sc-106. HUBBELL.

Advanced study of the origin and history of the earth and the development of plant and animal life during the geologic past.

GERMAN

CGn. 33.—First Year German. 3 credits. First half of the course CGn. 33-34. Open to students who have had no previous work in German.
8:00 daily and 2:00 T. Th. Bu-201. JONES.

A beginning course basic for further study. The objective is a moderate proficiency in speaking and reading the language, with specific emphasis on the oral approach.

Gn. 430.—Individual Work. 3 credits.
To arrange. JONES.

Readings in special fields. The course may be repeated without duplication of credit.

GRADUATE COURSE

Gn. 530.—Individual Work. 3 credits.
To arrange. JONES.

Readings and reports in fields chosen by the individual student. Mainly designed for graduate students desiring to gain special information in certain genres, movements or authors. The course may be repeated without duplication of credit.

HANDWRITING

(See Business Education)

HEALTH AND PHYSICAL EDUCATION

HPl. 363.—Teaching Physical Education in the Secondary School. 3 credits.
To arrange. Yn-147. SALT.

The program of physical education activities for the secondary school involving team games, rhythm, gymnastics activities, individual and dual sports; together with appropriate procedures and methods for conducting such a program.

HPl. 373.—Methods and Materials in Physical Education. 3 credits.
9:00 daily and 3:00 T. Th. Yn-138. SALT.

The program of physical education activities for the elementary school including small group play, large group play, directed play, team game units; together with appropriate procedures and methods for conducting such a program.

HPl. 381.—Advanced Football. 3 credits.
3:00 T. Th. Basketball Court. LIEB and STAFF.

A consideration of football from the viewpoint of the interscholastic coach, presenting fundamentals in blocking, tackling, kicking, passing, individual position play, appropriate offensive formations and plays, and various defensive formations.

HPl. 387.—Health Education. 3 credits.
11:00 daily and 5:00 T. Th. Yn-138. SALT.

A consideration of the principles underlying health education, together with the organization and administration of such a program; the role of the teacher in health instruction, who shall

teach health, the organization of materials for instructional purposes, criteria for the evaluation of health materials and methods, the role of local, state and national non-official organizations in health teaching programs.

HPl. 481.—Advanced Basketball. 2 credits.
10:00 daily. Basketball Court. LIEB and STAFF.

Fundamentals of basketball for men; dealing with the techniques of shooting, passing, dribbling, stops, and guarding. A consideration of offensive play, defensive team play, signals, scouting, team strategy, training, practice sessions, selection and placing of players, and other essentials of the modern court game.

GRADUATE COURSE

HPl. 532.—Guided Professional Development in Health and Physical Education. 3 credits. The second half of the course HPl. 531-532.
To arrange. Yn-147. SALT.

Designed to give teachers, supervisors, and administrators a broad understanding of the field of health and physical education. At the beginning of the course the student and instructor will outline a program of professional development in keeping with the needs and interests of the student.

HISTORY

The prerequisites for Upper Division courses in History are: C-1. *American Institutions* or Hy. 313-314. *Europe During the Middle Ages.* (Formerly Hy. 101-102.)

CHy. 13.—History of the Modern World. 3 credits.
11:00 daily and 5:00 T. Th. Pe-112. HANNA.

A study of the modern world from the Congress of Vienna to the present time.

Hy. 301.—American History, 1492 to 1783. 3 credits.
9:00 daily and 3:00 T. Th. Pe-112. LEAKE.

A study of the Colonial and Revolutionary periods.

Hy. 361.—English History to 1688. 3 credits.
10:00 daily and 4:00 T. Th. Pe-209. PAYNE.

A survey of English History from the Anglo-Saxon settlements to the Glorious Revolution.

Hy. 363.—Latin American History to 1850. 3 credits.
11:00 daily and 5:00 T. Th. Pe-209. GLUNT.

A survey course on the colonization and development of Latin America.

GRADUATE COURSE

Hy. 509.—Seminar in American History. 3 credits.
To arrange. LEAKE.

For graduate students majoring in History.

INDUSTRIAL ARTS EDUCATION

Courses in Industrial Arts Education will be conducted by the project method. Arrangements will be made for students to register for any of the courses in Industrial Arts Education regularly offered in the fall and spring semesters if such courses are needed to meet certification requirements this summer.

In. 111.—Mechanical Drawing. 3 credits.
Project method. Yn-316. GOTTSHALL.

For industrial arts students. Freehand sketching, lettering, orthographic projection, geometric construction, working drawing and blue printing, care and use of instruments.

In. 112.—Mechanical Drawing. 3 credits.
Project method. Yn-316. GOTTSHALL.

For industrial arts students. Perspective rendering, tracings and blue prints for a small building; different types of letters, machine sketching, and conventions. Suggestions and plans as to the most effective way of teaching a course of this type.

In. 211.—General Shop. 3 credits.
Project method. Yn-Shop. GOTTSHALL.

For industrial arts students. Practice in use of hand tools commonly found in school shops; types of construction, design, woodfinishing; block-printing. Analysis of logical teaching units in projects and problems in the various phases of industrial arts.

In. 305.—Design and Construction. 3 credits.
Project method. Yn-316. GOTTSHALL.

Advanced problems in design and construction taken from some area of work in the general shop in selected advanced areas in which the student desires major emphasis.

In. 401.—Architectural Drawing. 3 credits. Prerequisite: In. 111-112.
Project method. Yn-316. GOTTSHALL.

Designed for industrial arts teachers. Study made of building materials, sources and prices; landscaping as to orientation; plans, elevations, sections, details, conventions; types and styles of domestic architecture, and a review of the history of architecture.

In. 411.—General Machine Shop and Metal Work. 3 credits.
Project method. Yn-316. GOTTSHALL.

Recommended for properly qualified students in the College of Education. It consists of classroom study and laboratory practice in pattern work, foundry, and general machine shop operations.

INDUSTRIAL ENGINEERING

Ig. 365.—Engineering Mechanics—Statics. 3 credits. Prerequisites: Ps. 205, Ms. 353, Ml. 182.
10:00 daily and 4:00 T. Th. Eg-213. R. A. THOMPSON.

Principles of statics; resolution and equilibrium of concurrent forces; numerical and graphical solution of trusses and hinged frames; couples; centers of gravity; forces in space; and moments of inertia. Timoshenko and MacCullough, *Engineering Mechanics.*

LATIN-AMERICAN WORKSHOP

A special workshop program is offered in the 1945 Summer Session by the Division of Language and Literature of the College of Arts and Sciences in cooperation with the Office of the Coordinator of Inter-American Affairs. The following courses are being offered in connection with this program:

Brazilian Literature—listed under Portuguese as Pe. 417.
Geography of the Americas—listed under Geography as Gpy. 201.
Latin-American Civilization—listed under Sociology as Sy. 364.
Latin-American History to 1850—listed under History as Hy. 363.
Portuguese, First and Second-Year—listed under Portuguese as Pe. 33 and Pe. 201.

Spanish, First and Second-Year—listed under Spanish as CSh. 33 and Sh. 201.

Spanish-American Literature—listed under Spanish as Sh. 417.

Teaching of Spanish—listed under Spanish as Sh. 423.

LAW

The courses offered in law will provide work for entering as well as advanced students.

First Term, June 1 - July 20, 1945

Lw. 310.—Judicial Administration. 2 credits.
10:00 M. T. W. Th. F. Lw-105. TESELLE.

Venue; jurisdiction; local and transitory actions; summons, personal service; appearance and waiver of process, immunity; service for personal judgments also in rem; return. McBaine, *Cases on Trial Practice*, 2nd edition.

Lw. 407.—Legal Bibliography. 1 credit.
2:00 T. F. Lw-Library. PRIDGEN.

The classes of law books; the location and use of decisions and statutes; the trial brief; the brief on appeal. Brandt, *How to Find the Law*, 3rd edition.

Lw. 420.—Equitable Relief Against Torts. 2 credits.
9:00 M. T. W. Th. F. Lw-105. TRUSLER.

Growth and nature of jurisdiction; the bases of specific relief; relief in equitable proceedings; defenses to specific relief; protection of public and social interest; enforcement of specific relief. Chafee. *Cases on Equitable Relief Against Torts.*

***Lw. 431.—Appellate Procedure and Judgments.** 2 credits.
8:00 M. T. W. Th. F. Lw-105. TESELLE.

Judgments; appeals; what is reviewable; methods; parties, assignments of error; record; briefs, arguments; decision. Special emphasis on new appeal rules of Florida Supreme Court. Sunderland, *Cases and Materials on Appellate Practice*, 2nd edition.

Lw. 521.—Trusts. 2 credits.
11:00 M. T. W. Th. F. Lw-105. DAY.

The Anglo-American system of uses and trusts; creation, transfer, extinguishment of trust interests; priorities between competing equities; construction of trust dispositions. Casebook to be selected.

MATHEMATICS

Before registering for any course, the student should ascertain the prerequisites by writing to or consulting the head of the department.

C-42.—Fundamental Mathematics. (See Comprehensive Courses.)

CMs. 23.—Basic Mathematics. 3 credits.
Section 1. 8:00 daily and 2:00 T. Th. Pe-1. MCINNIS.
Section 2. 10:00 daily and 4:00 T. Th. Pe-2. PIRENIAN.

In place of the traditional college algebra, trigonometry, and analytic geometry in succession, this course offers a sequence of topics including the above plus a liberal amount of calculus. Teachers of high school mathematics who wish to advance in technical command of the subject matter should elect both CMs. 23 and CMs. 24. This is also designed for those who plan to major in mathematics or to elect courses above the freshman level.

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*Not open to entering students.

Ms. 226.—Algebra for Teachers. 3 credits.
9:00 daily and 3:00 T. Th. Pe-1. McINNIS.

The materials of first and second year high school algebra. A study of the State adopted text with supplementary and illustrative material. Methods of presentation. Functional relationships. Construction and interpretation of graphs.

Ms. 326.—Advanced General Mathematics. 3 credits.
8:00 daily and 2:00 T. Th. Pe-2. PIRENIAN.

Continuation of the geometric and trigonometric topics treated in C-42 together with some supplementary material. The nature of a geometric proof. Types of proof. Problems in geometric construction. The generalization of theorems. Trigonometry as an extension of geometry. Analysis of the locus idea in mathematics. Field and laboratory work in geometry and trigonometry.

Valuable to prospective teachers of mathematics and others who wish to continue some mathematical work without becoming specialists in pure mathematics.

Ms. 353.—Differential Calculus. 3 credits.
11:00 daily and 5:00 T. Th. Pe-102. SIMPSON.

A beginning course. Differentiation, one of the most important and practical fields of mathematics, is treated in the main, but a beginning is made in integration, the inverse operation of differentiation.

***Ms. 431.—College Geometry.** 3 credits.
9:00 daily and 3:00 T. Th. Pe-2. LANG.

The use of elementary methods in the advanced study of the triangle and circle. Special emphasis on solving original exercises. Valuable to prospective high school geometry teachers. Altshiller-Court, *College Geometry.*

GRADUATE COURSES

Ms. 530.—Individual Work. Variable credit.
To be arranged. LANG and STAFF.

An opportunity to register for work in any phase of graduate mathematics.

Ms. 568.—History of Elementary Mathematics. 3 credits.
11:00 daily and 5:00. T. Th. Pe-1. KOKOMOOR.

A survey of the development of mathematics through the calculus, with special emphasis on the changes of the processes of operations and methods of teaching. No specific text is followed, but numerous works are used as references.

MECHANICAL ENGINEERING

Ml. 481.—Internal Combustion Engines. 3 credits Prerequisite: Ml. 385.
11:00 daily and 5:00 T. Th. Eg-213. R. A. THOMPSON.

Gas and liquid fuel, internal combustions, hot-air engines, and gas producers. Automotive, aircraft, and Diesel power plants. Streeter and Lichty, *Internal Combustion Engines.*

MUSIC

Msc. 103.—Materials and Methods for Grades One, Two, and Three. 2 credits.
1:00 to 3:00 M. W. F. Aud. CARSON.

The child voice; rote songs; development of rhythm; sight-singing from rote to note; development of skills necessary for teaching primary music.

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*If another undergraduate course is in greater demand, it may be given instead of Ms. 431.

Msc. 104.—Materials and Methods for Grades Four, Five, and Six. 2 credits.
3:00 to 5:00 M. W. F. Aud. CARSON.

Development of sight-singing; study of problems pertaining to intermediate grades; part singing; song repertoire; appreciation work suitable for intermediate grades.

PHYSICS

Students in the College of Engineering desiring to earn credit in Physics may enroll in the courses outlined below. Additional problem work and subject matter will be assigned, and substitution will be allowed if a grade of C or higher is made.

Ps. 101.—Elementary Physics. 3 credits. Prerequisite: C-2 or consent of instructor.
9:00 daily and 3:00 T. Th. Bn-201. SWANSON.

A course in general physics for science students.

Ps. 103.—Elementary Physics Laboratory. 2 credits. Corequisite: Ps. 101.
7:00 to 10:00 P.M. M. and 1:00 to 5:00 F. Bn-307. PERRY.

Laboratory for Physics 101.

POLITICAL SCIENCE

The prerequisites for the Upper Division courses in Political Science are: C-1 or Pcl. 313-314. (Formerly Pcl. 101-102.)

Pcl. 309.—International Relations. 3 credits.
8:00 daily and 2:00 T. Th. Pe-208. LAIRD.

The first half of a course treating the main development in the field of international intercourse.

Pcl. 313.—American Government and Politics. 3 credits.
9:00 daily and 3:00 T. Th. Pe-209. PAYNE.

A study of the structure and workings of the Federal Government.

Pcl. 407.—Comparative Government. 3 credits.
9:00 daily and 3:00 T. Th. Pe-208. LAIRD.

A comparative study of the theory and practice of modern governments.

PORTUGUESE

Courses in Portuguese (and Spanish) are being offered as a part of the Latin-American Workshop, sponsored by the University of Florida and by the Office of the Coordinator of Inter-American Affairs. (See under "General Information" in this Bulletin.) These courses are open to regular students as well as to those enrolled in the Workshop.

Pe. 33.—First-Year Portuguese. 3 credits. The first half of the course Pe. 33-34. Open to students who have had no previous work in Portuguese.
9:00 daily and 3:00 T. Th. Bu-101. ATKIN.

A beginning course basic for further study. The objective is a moderate proficiency in speaking and reading the language, with specific emphasis on the oral approach.

Pe. 201.—Second-Year Portuguese. 3 credits. The first half of the course Pe. 201-202. Prerequisite: Pe. 34 or the equivalent.
10:00 daily and 4:00 T. Th. Bu-101. ATKIN.

Continued practice in conversation. Readings in Brazilian prose of moderate difficulty.

Pe. 417.—An Introduction to Brazilian Literature. 3 credits. Prerequisite: Permission of the instructor.
11:00 daily and 5:00 T. Th. Bu-101.

Presentation of the more significant literary movements in Brazil and readings from representative authors.

PSYCHOLOGY

Psy. 201.—General Psychology. 3 credits.
10:00 daily and 4:00 T. Th. Pe-114. W. R. THOMPSON.

An elementary treatment of the general topics in the field of Psychology. Designed to provide an understanding of human behavior, approached as a natural phenomenon subject to scientific study. The unifying concept of the course is the adaptation of the individual to his physical and social environment.

Psy. 309.—Personality Development. 3 credits.
9:00 daily and 3:00 T. Th. Pe-114. HINCKLEY.

A study of the mechanisms of personality formation, with special emphasis upon the varieties of human adjustment. The more inevitable problems of human life with their normal and abnormal solutions. The origin and modification of behavior. Processes of motivation and adjustment. Development and measurement of personality traits. Techniques of mental hygiene.

Psy. 406.—Psychological Tests. 3 credits.
8:00 daily and 2:00 T. Th. Pe-114. W. R. THOMPSON.

Tests of general intelligence, special aptitudes, personality traits, and business ability; organization and administration; methods and results; theory of test construction and scoring; practical use of tests.

Psy. 410.—Advanced Abnormal Psychology. 3 credits. Prerequisite: Psy. 310.
11:00 daily and 5:00 T. Th. Pe-114. HINCKLEY.

Lectures and readings on the various forms of mental disease, with attention to causes, diagnosis, symptoms, and treatment. Psychiatric information for social workers and school psychologists.

GRADUATE COURSES

Psy. 506.—Psychological Tests. 3 credits.
8:00 daily and 2:00 T. Th. Pe-114. W. R. THOMPSON.

Psy. 510.—Advanced Abnormal Psychology. 3 credits.
11:00 daily and 5:00 T. Th. Pe-114. HINCKLEY.

SOCIAL STUDIES

Scl. 215.—American Civic Development. 3 credits.
11:00 daily and 5:00 T. Th. Pe-208. PATRICK.

Especially designed for teachers. An analysis of the forces and events which have contributed to the development of many of the current concepts in the social studies as they form a part of the school curriculum.

Scl. 301.—Children's Social Studies. 3 credits.
10:00 daily and 4:00 T. Th. Yn-140. BARRY.

An opportunity will be given to study content material in the social studies field with implications for the activity program.

SOCIOLOGY

CSy. 13.—Sociological Foundations of Modern Life. 3 credits. Prerequisite: C-1, or consent of instructor.

9:00 daily and 3:00 T. Th. Pe-4. MACLACHLAN.

The outlook for the individual in the modern world. Direct measurement of social effects of invention and technological change in modern America. The effects of the metropolitan epoch on social institutions. A review of the American regions as cultural environments and challenges to citizenship in the future.

Sy. 322.—The Child in American Society. 3 credits.

10:00 daily and 4:00 T. Th. Pe-4. THOMASON.

A study of the social adjustment of children in a changing world. Factual study of social situations in American life as they affect children. Emphasis is upon the adjustment and development of the normal child, with attention to the problems of abnormal and maladjusted children. The course provides factual sociological materials designed to supplement, rather than to duplicate, parallel courses in Education and Psychology.

Sy. 364.—Latin-American Civilization. 3 credits.

1:00 to 4:00 M. W. F. Bu-301. HAUPTMANN and STAFF.

A cooperative course of supervised studies on the most significant aspects of Latin-American life and civilization.

Sy. 442.—Applied Sociology. 3 credits.

11:00 daily and 5:00 T. Th. Pe-4. MACLACHLAN.

Theories developed in previous courses applied to a long-term program of improvement. Social investigation as the basis of social planning. Especially adapted to the needs of mature students who may expect to apply sociological methods and standards to practical affairs in teaching or social welfare.

Sy. 443.—The American Negro. 2 credits.

11:00 daily. La-201. BEATY.

Social, economic, and political aspects of racial problems in the United States with particular emphasis on the American negro. Brief history of the negro from early days of slavery to the present. Contrast between the cultures of the whites and the negroes in the North and South. Racial segregation and discrimination. The role of the negro in Southern culture today.

SPANISH

Courses in Spanish (and Portuguese) are being offered as a part of the Latin-American Workshop, sponsored by the University of Florida and by the Office of the Coordinator of Inter-American Affairs. (See under "General Information" in this Bulletin.) These courses are open to regular students as well as to those enrolled in the Workshop.

CSh. 33.—First-Year Spanish. 3 credits. The first half of the course CSh. 33-34. Open to students who have had no previous work in Spanish.

9:00 daily and 3:00 T. Th. Bu-301. HAUPTMANN.

A beginning course basic for further study. The objective is a moderate proficiency in speaking and reading the language, with specific emphasis on the oral approach.

Sh. 201.—Second-Year Spanish. 3 credits. First half of the course Sh. 201-202. Prerequisite: CSh. 34 or equivalent.

8:00 daily and 2:00 T. Th. Bu-301. HAUPTMANN.

Continued practice in conversation. Readings in Peninsular and Latin-American prose of moderate difficulty.

Sh. 417.—An Introduction to Spanish-American Literature. 3 credits. Prerequisite: Permission of Instructor.

To arrange. HAUPTMANN.

Presentation of the more significant literary movements in Spanish America and readings from representative authors.

Sh. 423.—The Teaching of Spanish. 1 credit. Prerequisite: Permission of the instructor.

10:00 daily and 4:00 T. Th. Yn. TRUJILLO.

A series of demonstrations on the theory and practice of teaching Spanish in elementary and secondary schools.

SPEECH

Students taking courses in the Department of Speech must have completed the equivalent of C-3, or have the consent of their dean.

CSc. 33.—Effective Speaking. 3 credits.

9:00 daily and 3:00 T. Th. Pe-205. CONSTANS.

Designed to aid the student through lecture, reading, demonstration, and practice in speaking to learn to talk effectively to a group. The individual needs of the student are given attention.

Sch. 301.—Advanced Public Speaking. 3 credits.

10:00 daily and 4:00 T. Th. Pe-205. CONSTANS.

Structure, style, and delivery of speeches for formal occasions, with special emphasis on the psychology of audience persuasion. Practice in speaking before off-campus audiences.

Sch. 404.—Dramatic Production. 3 credits. Prerequisite: CSc. 33 or consent of Instructor.

11:00 daily and 5:00 T. Th. Pe-205. TEW.

Consideration of voice, line reading, and the principles of character interpretation; the problem of directing, stage equipment, costuming, lighting, and make-up. Rehearsal of plays.

Sch. 419.—Correction of Speech Defects. 6 credits. Prerequisite: CSc. 33 or consent of the Instructor.

8:00 to 10:00 daily. Class discussion. Pe-206. HALE.

2:00 to 3:00 or 3:00 to 4:00 M. T. Th. F. Clinic observation and practice. Pe-206.

Two hours per week. To arrange. Special lectures. Pe-206.

The recognition and treatment of defects of speech together with a study of their underlying pathologies. A brief review of the speech mechanism and the IPA sound system. Diagnostic methods and specific therapeutic techniques will be presented for the following types of speech defects: articulatory, quality, pitch, dialect, delayed speech, infantile perseveration, stuttering, cleft palate, paralysis, dysphasia, cerebral palsy, and emotional instability. The course will be conducted by the lecture, class discussion and demonstration method. The students will observe and work with the patients in the Speech and Hearing Clinic, will prepare case histories and clinical reports, and will be assigned special readings and laboratory projects. Organization of clinics and code of ethics for clinicians.

Speech and Hearing Clinic.

2:00 to 4:00 M. T. Th. F. Pe-206 and 210. HALE and ASSISTANTS.

Children and adults from the surrounding area who have been receiving treatment in the Clinic during the regular school year will be in attendance. Persons from anywhere in the state may come during the summer and receive diagnosis and treatment. The work of the Clinic will be supervised by a staff member of the Department of Speech who will be assisted by experienced clinicians.

GRADUATE COURSES

Sch. 504.—Problems in Dramatic Production. 3 credits.
11:00 daily and 5:00 T. Th. Pe-205. CONSTANS and TEW.

Sch. 519.—Advanced Speech Correction. 3 credits.
8:00 to 10:00 daily. Pe-206. HALE. Offered with Sch. 419 with extra readings, reports, and research.

DEPARTMENTS OF INSTRUCTION

AND SCHEDULE OF COURSES

Second Term

All classes ordinarily meet for fifty minutes. Classes scheduled to meet daily meet Monday through Saturday. Course descriptions are not given if the same course was offered the first term. See appropriate section of the first term schedule for this information.

Some courses are indicated as being offered by the project method. Students taking these courses will do independent work under the supervision of the instructor, with no regular class meetings unless time of meeting is listed in the schedule.

Students not registered in the Graduate School will not be permitted to register for graduate courses unless they secure written approval from the Dean of the Graduate School and the instructor concerned.

COMPREHENSIVE COURSES

Students should consult official announcements by the Board of University Examiners for details concerning comprehensive examinations.

C-12.—American Institutions. 4 credits.
Section 10. 8:00 daily and 2:00 M. T. Th. F. Pe-101. PRICE.
Section 11. 11:00 daily and 5:00 M. T. Th. F. Pe-101. PRICE and WEBB.

C-22.—The Physical Sciences. 3 credits.
8:00 daily and 2:00 T. Th. Bn-201. GADDUM.

C-32.—Freshman English. 4 credits.
(Register for one discussion section and one writing laboratory section.)
Discussion Sections:
Section 10. 8:00 daily and 2:00 T. Th. La-203. WISE.
Section 11. 9:00 daily and 3:00 T. Th. La-203. MORRIS.
Writing Laboratory Sections:
Section 101. 10:00 to 12:00 T. Th. La-209. CONGLETON, WISE.
Section 102. 3:00 to 5:00 W. F. La-209. CONGLETON, WISE.

C-41.—Practical Logic. 3 credits.
10:00 daily and 4:00 T. Th. La-201. LITTLE.

C-52.—The Humanities. 4 credits.
(Register for the lecture section and the discussion section.)
Lecture Section 1: 12:00 M. T. W. F. Aud. HANNA.
Discussion Section 10: 8:00 daily. La-212.

C-62.—Biological Science. 3 credits.
(Register for the lecture section and the discussion section.)
Lecture Section 1: 9:00 daily. Sc-101. BYERS.
Discussion Section 10: 3:00 T. Th. Sc-101. BYERS.

ARCHITECTURE

THESIS IN ARCHITECTURE

Ae. 71A.—Thesis. HANNAFORD. Prerequisite: Completion of all other requirements for the degree.

A comprehensive final project in architecture based on a program submitted by the student and approved by the faculty. The program must be approved in time to permit not less than 14 weeks for the study of the problem. The presentation will include the architectural, structural, and mechanical equipment drawings, and portions of the specifications. Models and written descriptions may accompany the solution. One project. Nominal time, 48 hours a week for 1 semester.

BIOLOGY

Bly. 102.—An Introduction to Invertebrate Zoology. 3 credits. Co- or prerequisite C-6.

10:00 daily. Sc-101. HOBBS.
Laboratory: 1:00 to 5:00 M. and 7:00 to 10:00 P.M. W. Sc-10.

An introduction to the biology of the invertebrates with special reference to their morphology, life histories and classification. This course in combination with Bly. 101 and C-6 required for major in Bly. and meets minimum requirement for pre-medical Biology.

Bly. 134.—The Life of the Inland Waters of Florida. 3 credits.

11:00 daily and 5:00 T. Th. Sc-101. J. S. ROGERS.

A companion course to Bly. 133 but concerned with the common plant and animal life of our streams, pools, ponds, lakes and marshes. Particular attention is given to obtaining an acquaintance with those species and groups of organisms that comprise the more important, more conspicuous, and more interesting members of Florida's rich aquatic biota. Laboratory demonstrations, field trips and individual projects will form an important part of this course.

BUSINESS ADMINISTRATION

(See Economics and Business Administration)

BUSINESS EDUCATION

Note: These courses do not count as credit in Education.

BEn. 94.—Stenography. 4 credits. Prerequisites: BEn. 81 and BEn. 91 or permission of the instructor.

To arrange. Yn-305. ROWE.

Advanced course in shorthand and typewriting. Designed for those who desire more instruction than is given in the elementary or introductory courses in shorthand and typewriting for personal use, as well as for those who desire certification in the commercial subjects.

BEn. 97.—Handwriting. 1 credit.

7:00 M. T. W. F. Yn-306. ROWE.

CHEMISTRY

Cy. 102.—General Chemistry. 4 credits. The second half of the course Cy. 101-102.

11:00 daily and 5:00 T. Th. Ch-212. HEATH.
Laboratory: 1:00 to 5:00 W. and 7:00 to 10:00 P.M. Th. Ch-130.

Cy. 202.—Analytical Chemistry. 4 credits. The second half of the course Cy. 201-202.

8:00 daily and 2:00 T. Th. Ch-212. HEATH.

Laboratory: 1:00 to 5:00 W. and 7:00 to 10:00 P.M. Th. Ch-230.

Theoretical principles and laboratory technique involved in the quantitative determination of the common metals and acid radicals.

Cy. 302.—Organic Chemistry. 4 credits. The second half of the course Cy. 301-302.

9:00 daily and 3:00 T. Th. Ch-212. POLLARD.

Laboratory: 1:00 to 5:00 W. and 7:00 to 10:00 P.M. Th. Ch-230.

GRADUATE COURSES

***Cy. 505.—Organic Nitrogen Compounds.** 3 credits. To arrange. POLLARD.

***Cy. 506.—Special Chapters in Organic Chemistry.** 3 credits. To arrange. POLLARD.

***Cy. 572.—Research in Organic Chemistry.** 2 to 6 credits. POLLARD.

CIVIL ENGINEERING

Cl. 329.—Higher Surveying. 5 credits. Prerequisite: Cl. 226. Continued from 1st Term.

1:00 to 6:00 M. W. F. and 8 other hours to arrange. Hl-303. GAGER.

Cl. 442.—Public Health Engineering. 3 credits. Prerequisites: Cl. 327, Cy. 215, Bcy. 308.

9:00 daily and 3:00 T. Th. Hl-101. GAGER.

Lectures on Public Health Administration, Epidemiology, and Vital Statistics.

ECONOMICS AND BUSINESS ADMINISTRATION

Courses preceded by Es. are courses in Economics and courses preceded by Bs. are courses in Business Administration.

†CEs. 132.—Economic Foundations of Modern Life. 3 credits.

8:00 daily and 2:00 T. Th. Pe-112. DOLBEARE.

CBs. 142.—Elementary Accounting. 3 credits.

7:00 daily and 1:00 T. Th. La-204. BEIGHTS.

Es. 240.—The Economic Problems of War. 3 credits.

11:00 daily and 5:00 T. Th. La-201. EUTSLER.

The nature of war, economic causes of war, manpower requirements of total war, the price system under the impact of war, control of production and consumption, the supply of strategic materials, foodstuffs and war, war finance, the aftermath of war.

Bs. 312.—Accounting Principles. 3 credits.

10:00 daily and 4:00 T. Th. La-204. BEIGHTS.

Consideration is given to the legal aspects of accounting and related problems resulting from

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*The one of these three courses for which there is the greatest demand will be given.

† This course is a unit. To complete it both terms of the summer session are required. Students may take the second term without having had the first term only with the consent of the Instructor.

the legal organization form used by businesses: liabilities; proprietorship; partnerships; corporations; capital stock; surplus; followed by a study of the financial aspects of accounting as disclosed by an analysis and interpretation of financial statements: financial ratios and standards, their preparation, meaning, and use.

Es. 321.—Financial Organization of Society. 3 credits. Prerequisite: CEs. 13.
7:00 daily and 1:00 T. Th. Pe-112. DOLBEARE.

An introduction to the field of finance: a study of the institutions providing monetary, banking and other financial services; interrelationships and interdependence of financial institutions; central banking; government control of finance; significance of financial organization to the economic system as a whole.

Es. 335.—Economics of Marketing. 3 credits. Prerequisite: CEs. 13.
9:00 daily and 3:00 T. Th. La-201. EUTSLER.

The nature of exchange and the economic principles underlying trade, with particular attention given to interregional trade. The significance of comparative costs, comparative advantages, and comparative disadvantages. The institutions and methods developed by society for carrying on trade operations; retail and wholesale agencies; elements of marketing efficiency; the cost of marketing; price maintenance; unfair competition; the relation of the government to marketing.

Bs. 402.—Business Law. 3 credits. Second half of the course Bs. 401-402.
9:00 daily and 3:00 T. Th. Lw-202.

Es. 467.—Economic History. 3 credits.
11:00 daily and 5:00 T. Th. La-203. JOUBERT.

A study of the development of the present economic order and its institutions. Variant forms of economic life are surveyed with emphasis placed on capitalism and its culture. Some of the problems that have arisen as a result of capitalistic economy are analyzed.

Courses by Project Method. MATHERLY, DOLBEARE and EUTSLER.

Students may register for certain upper division courses and complete them by the individual project method. Information about these courses may be obtained from the Office of the Dean of the College of Business Administration.

EDUCATION

En. 262.—Planning School Programs. 3 credits.
1:00 to 4:00 M. W. F. Yn-317. NUTTER and JONES.

Provision for individual teachers, principals, representative faculty groups, and total faculty groups to make individual teacher plans or total school plans for their own schools.

En. 386.—Educational Psychology. 3 credits.
8:00 daily and 2:00 T. Th. Yn-218. CUMBEE.

The individual and education. A study will be made of the physical, emotional, mental, and social growth of the adolescent. Achievement will be considered in terms of growth.

En. 403.—Principles and Philosophy of Education. 3 credits.
9:00 daily and 3:00 T. Th. Yn-140. LEWIS and NORMAN.

An examination of the various theories and philosophies of education; their relationships to education in a democracy.

En. 406.—Administration of the Elementary School. 3 credits.
11:00 daily and 5:00 T. Th. Yn-134. LEPS.

The problems that usually confront the elementary school principal will be stressed in this course. Reavis, Pierce and Stulken, *The Elementary School.*

En. 421.—Student Teaching. 3 credits. The first half of the course En. 421-422. To arrange. CUMBEE.

En. 421-422: The student is given practice in the art of teaching by actually taking over responsibility for the teaching-learning situation and putting into operation under direction and supervision the theories, methods, materials, and teaching techniques acquired during his junior year through observation and participation.

En. 422.—Student Teaching. 3 credits. The second half of the course En. 421-422. To arrange. CUMBEE.

En. 471.—Problems of Instruction. 6 credits.
9:00 to 11:00 daily and 3:00 to 5:00 T. Th. Yn-150. HOUGH.

En. 472.—Methods and Organization in Industrial Arts. 3 credits.
Project method. Yn-316. GOTTSHALL.

Organization of industrial arts materials for the various grades and schools; planning courses of study, selecting equipment and supplies; study of aims and objectives of industrial arts. A study of the utilization of current acceptable teaching techniques and devices.

GRADUATE COURSES

En. 542.—Problems in Measurement, Evaluation and Guidance. Credit varies; maximum credit 6. CRAGO.

En. 543.—Problems in the History and Philosophy of Education. Credit varies; maximum credit 6. NORMAN and LEWIS.

En. 548.—Problems in Secondary Education. Credit varies; maximum credit 6. W. R. STEVENS.

En. 550.—Problems in School Supervision. Credit varies; maximum credit 6. CAMPBELL and LEPS.

ELECTRICAL ENGINEERING

Radio courses in the Department of Electrical Engineering are given in cooperation with Radio Station WRUF. Qualified students can secure practical experience in station operation.

El. 341.—Elements of Electrical Engineering. 3 credits. The first half of course El. 341-342. Prerequisites: One year of college physics, including electricity and magnetism; differential and integral calculus; Ml. 182.
9:00 daily and 3:00 T. Th. Eg-213. J. W. WILSON.

Electric and magnetic circuits; electrostatics; electro-magnetics; representation of alternating currents by vectors and complex quantities; measurement of power in single phase and polyphase circuits; generation, transmission, and utilization of electrical energy; characteristics of apparatus; selection, testing, and installation of electrical equipment.

El. 349.—Dynamo Laboratory. 1 credit. The first half of the course El. 349-350. Corequisite: El. 341.
1:00 to 3:00 M. W. F. Bn-106. J. W. WILSON.

Experimental studies and tests on direct current and alternating current apparatus.

El. 465.—Radio Engineering. 5 credits. The first half of the course El. 465-466. Prerequisite: El. 346.

8:00 daily and 2:00 T. Th. Eg-213. J. W. WILSON.
Laboratory: 1:00 to 6:00 M. W. F. Se-11th floor.

The function of high frequency networks; network theorems, resonance; the infinite line; reflection; filters; coupled circuits; impedance transformation; inductive interference; vacuum tubes; modulation and demodulation; vacuum tube detectors; audio video and radio frequency amplifiers; oscillators; antennas and radiation. Terman, *Radio Engineering.*

ENGLISH

(See note preceding First Term English Schedule.)

CEh. 37.—Literary Masters of England. 3 credits.
11:00 daily and 5:00 T. Th. La-210. ROBERTSON.

The most interesting and significant English writers from the beginning to the 19th century are read and discussed primarily for an appreciation of their art and their outlook on life. For teachers, particular attention will be devoted to writers and works stressed in junior and senior high school English courses, and to methods of presentation.

CEh. 314.—Masterpieces of World Literature. 3 credits.
8:00 daily and 2:00 T. Th. La-210. MOUNTS.

The second half of the course CEh. 313-314. A lecture and reading course designed to acquaint the student with some of the greatest books in the world, books which every educated man should know.

Eh. 301.—Shakespeare. 3 credits.
10:00 daily and 4:00 T. Th. La-210. ROBERTSON.

The primary design is to increase the students' enjoyment and appreciation of the plays. Devoted chiefly to the romantic comedies and the history plays, including *A Midsummer Night's Dream, The Merchant of Venice, Much Ado, As You Like It, Twelfth Night, Richard the Second,* and *Henry the Fourth.* As an aid to the reading of Shakespeare, some of the most interesting features of the Elizabethan stage and drama are treated briefly.

Eh. 365.—Contemporary Literature: Fiction. 3 credits.
9:00 daily and 3:00 T. Th. La-210. MOUNTS.

A consideration of the most important English and American writers of prose fiction from Thomas Hardy to the present, with major emphasis upon recent novelists.

Eh. 401.—American Literature. 3 credits.
8:00 daily and 2:00 T. Th. La-201. CONGLETON.

A study of American literature from the beginnings to 1850.

Eh. 443.—The English Romantic Period. 3 credits
11:00 daily and 5:00 T. Th. La-212. MORRIS.

Reading and discussion. Chief emphasis on the work of Burns, Blake, Coleridge and Wordsworth.

GRADUATE COURSES

Eh. 501.—American Literature. 3 credits.
8:00 daily and 2:00 T. Th. La-201. CONGLETON.

Eh. 530.—Individual Work. Credit arranged.
To arrange. STAFF.

Provision will be made for graduate students who desire to supplement the regular courses by individual reading or investigation under guidance. Students will be helped to plan a definite program, and will meet a member of the department staff in frequent conferences.

Eh. 543.—The English Romantic Period. 3 credits.
11:00 daily and 5:00 T. Th. La-212. MORRIS.

FRENCH

CFh. 34.—First-Year French. 3 credits. The second half of the course CFh. 33-34.
9:00 daily and 3:00 T. Th. Bu-205. BRUNET.

GRADUATE COURSE

Fh. 530.—Individual Work. Variable credit.
To arrange. BRUNET.

Fh. 530 offers graduate students an opportunity to study for credit, certain phases of French literature, language and civilization for which there are no regular course offerings. Such individual work may be elected for additional credit in subsequent sessions. Students will be helped to plan a definite program, and will meet the instructor for conferences.

GENERAL SCIENCE

Gl. 302.—Children's Science. 2 credits.
7:00 daily. Yn-142. GOETTE.

GEOGRAPHY

Gpy. 387.—World Geography. 3 credits.
8:00 daily and 2:00 T. Th. Yn-140. DURRANCE.

Economic and cultural geography in its relations to the Social Studies. Basic principles underlying the study and teaching of modern geography from the world point of view, with special emphasis on the place and purpose of geography as a social science in junior and senior high school curricula. Special stress is given to the relations of geography to history and civics. This course may be used to satisfy the conservation certificate requirement.

GERMAN

CGn. 34.—First-Year German. 3 credits. The second half of the course CGn. 33-34.
8:00 daily and 2:00 T. Th. Bu-201. JONES.

Gn. 430.—Individual Work. 3 credits.
Conference. Bu-303. JONES.

Readings in special fields. The course may be repeated without duplication of credit.

GRADUATE COURSE

Gn. 530.—Individual Work. 3 credits.
Conference. Bu-303. JONES.

Readings and reports in fields chosen by the individual students. Mainly designed for graduate students desiring to gain special information on certain genres, movements or authors. This course may be repeated without duplication of credit.

HANDWRITING

(See Business Education)

HEALTH AND PHYSICAL EDUCATION

HPl. 121.—Narcotics Education. 2 credits. (Offered August 13-31.)
11:00 and 5:00 daily. Yn-140. MISS LITTLE.

A factual, scientific, and unemotional approach to the present-day problem of narcotics. A study of the nature of alcohol and its relation to the psychological, physical, social, economic, and educational aspects of the problem will be considered briefly. Suggestive teaching projects, units, and methods for the various age-grade and subject levels will be explored and developed.

HPl. 373.—Methods and Materials in Physical Education. 3 credits.
9:00 daily and 3:00 T. Th. Yn-138. SALT.

HPl. 387.—Health Education. 3 credits.
8:00 daily and 2:00 T. Th. Yn-138. SALT.

HPl. 411.—Principles and Administration of Physical Education. 3 credits.
To arrange. Yn-147. SALT.

Fundamental principles upon which the present day program of physical education is based, together with a study of the history, aims, objectives, and contemporary trends in this field. The organization and administration of the program pertaining to the playground, gymnasium, swimming pool, service unit, intramural and interscholastic athletics.

GRADUATE COURSES

HPl. 505.—Coaches' Workshop. 3 credits.
8:00 to 10:00 daily and 2:00 to 4:00 T. Th. Basketball Court. LIEB and STAFF. (The first three weeks of the second term.)

The theory and practice of major sports together with an examination of the newer developments in coaching.

HPl. 533.—Problems of Physical Education. 3 credits. The first half of the course HPl. 533-534.
To arrange. Yn-147. SALT.

HISTORY

Hy. 302.—American History, 1783 to 1830. 3 credits.
9:00 daily and 3:00 T. Th. Pe-112. GLUNT.

From the close of the Revolution through the Jacksonian period.

Hy. 362.—English History, 1688 to the Present. 3 credits.
10:00 daily and 4:00 T. Th. Pe-112. PAYNE.

From the glorious Revolution to the present time.

Hy. 364.—Latin-American History, from 1850 to the Present. 3 credits.
11:00 daily and 5:00 T. Th. Pe-112. GLUNT.

A survey course covering the period from 1850 to the present.

INDUSTRIAL ARTS EDUCATION

In. 212.—General Shop. 3 credits.
Project method. Yn-316. GOTTSHALL.

Designed for industrial arts students. Use of hand tools and power machines, with special emphasis on the speed lathe; use, parts and care of machines; shop equipment and construction.

In addition to the development of manipulative skills, special emphasis is given to selecting projects, and writing the various types of instruction sheets.

In. 301.—Sheet Metal. 3 credits.
Project method. Yn-316. GOTTSHALL.

Design and construction in sheet metal for industrial arts students. Scope of sheet metal, various methods of drafting and construction, shop arrangements and equipment, methods of motivation for secondary school students in this phase of work.

In. 306.—General Metal Shop. 3 credits.
To arrange. GOTTSHALL.

Layout and construction in sheet metal. Scope of sheet metal, various methods of construction, shop arrangements and equipment. Study made of metals, materials and processes essential to oxyacetylene and arc welding; also forge and heat treating.

In. 401.—Architectural Drawing. 3 credits.
Project method. Yn-316. GOTTSHALL.

Designed for industrial arts teachers. Study made of building materials, sources and prices; landscaping as to orientation; plans, elevations, sections, details, conventions; types and styles of domestic architecture, and a review of the history of architecture.

In. 412.—General Machine Shop and Metal Work. 3 credits. The second half of the course In. 411-412.
To arrange. GOTTSHALL.

INDUSTRIAL ENGINEERING

Ig. 366.—Engineering Mechanics—Dynamics. 3 credits. Prerequisite: Ig. 365.
10:00 daily and 4:00 T. Th. Eg-213. R. A. THOMPSON.

Principles of dynamics; rectilinear, curvilinear, and harmonic motions; momentum and impulse; work and energy; force, mass, and acceleration; projectiles; simple, torsional, and compound pendulums; balancing of rigid bodies; and relative motion. Timoshenko and MacCullough, *Engineering Mechanics.*

Ig. 367.—Strength of Materials. 3 credits.
9:00 daily and 3:00 T. Th. Eg-212. R. A. THOMPSON.

Tension, compression, shear, stress and strain; combined stresses; riveted joints for pressure vessels and structural work; torsion; bending moments; stresses and deflection of simple, cantilever, and continuous beams; concrete beams; curved beams and hooks; eccentric loading columns; and elastic strain energy. Timoshenko and MacCullough, *Elements of Strength of Materials.*

LATIN-AMERICAN WORKSHOP

A special workshop program is offered in the 1945 Summer Session by the Division of Language and Literature of the College of Arts and Sciences in cooperation with the Office of the Coordinator of Inter-American Affairs. The following courses are being offered in connection with this program in the second term of the Summer Session:

Latin-American History 1850 to Present—listed under History as Hy. 364.

Portuguese, First and Second-Year—listed under Portuguese as Pe. 34 and Pe. 202.

Spanish, First and Second-Year—listed under Spanish as CSh. 34 and Sh. 202.

Individual Work in Spanish—listed under Spanish as Sh. 430 and 530.

LAW

Second Term, July 20 - September 7, 1945

Lw. 403.—Agency. 2 credits.
9:00 M. T. W. Th. F. Lw-105. TESELLE.

Nature, creation of the relation; rights and duties of agents; termination, nature, extent, construction, and execution of authority of agents; rights, duties, and liabilities of agents; principal and third persons inter se, particular classes of agents. Mechem, *Cases on Agency*, 2nd edition.

Lw. 404.—Quasi Contracts. 2 credits.
8:00 M. T. W. Th. F. Lw-105. TESELLE.

Origin and nature of quasi contract; benefits conferred in misreliance on rights or duty, from mistake of law, and on invalid, unenforceable, illegal, or impossible contract; benefits conferred through dutiful intervention in another's affairs; benefits conferred under constraint; action for restitution. Woodruff, *Cases on Quasi Contracts*, 3rd edition.

***Lw. 432.—Current U. S. Constitutional Law. 2 credits.**
10:00 M. T. W. Th. F. Lw-105. SLAGLE.

Bill of Rights; taxation; governmental regulation; foreign statutes and judgments; departmental relations; inter-governmental relations, U. S. Reports and selected materials.

Lw. 504.—Municipal Corporations. 2 credits.
11:00 M. T. W. Th. F. Lw-105. SLAGLE.

Nature; creation; control; nature of ordinances; powers; legislative and administrative procedure; home rule; intiative, referendum, recall; officers; merit system, remedies; torts. Seasongood, *Cases on Municipal Corporations*.

MATHEMATICS

CMs. 23.—Basic Mathematics. 3 credits.
10:00 daily and 4:00 T. Th. Pe-1.

CMs. 24.—Basic Mathematics. 3 credits.
10:00 daily and 4:00 T. Th. Pe-2. DAVIS.

A continuation of CMs. 23.

Ms. 354.—Integral Calculus. 3 credits.
8:00 daily and 2:00 T. Th. Pe-1. DAVIS.

Integration, the inverse operation of differentiation, is used in the calculation of areas, volumes, moments of inertia, and many other problems.

Ms. 430.—Individual Work. Variable credit.
To arrange. STAFF.

GRADUATE COURSE

Ms. 530.—Individual Work. Variable credit.
To arrange. STAFF.

PHYSICS

Ps. 102.—Elementary Physics. 3 credits. Prerequisites: Ps. 101 and 103.
9:00 daily and 3:00 T. Th. Bn-201. SWANSON.

A continuation of Ps. 101.

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*Not open to entering students.

Ps. 104.—Elementary Physics Laboratory. 2 credits. Corequisite: Ps. 102.
7:00 to 10:00 P.M. M. and 1:00 to 5:00 F. Bn-307. PERRY.

A continuation of Ps. 103.

POLITICAL SCIENCE

Pcl. 310.—International Relations. 3 credits.
8:00 daily and 2:00 T. Th. Pe-102. LAIRD.

The second half of a course in International Relations.

Pcl. 314.—American Government and Politics. 3 credits.
9:00 daily and 3:00 T. Th. Pe-208. PAYNE.

A study of State, Local and Municipal Government in the United States.

Pcl. 408.—Comparative Government. 3 credits.
9:00 daily and 3:00 T. Th. Pe-101. LAIRD.

PORTUGUESE

Pe. 34.—First-Year Portuguese. 3 credits. The second half of the course Pe. 33-34.
9:00 daily and 3:00 T. Th. Bu-101. ATKIN.

Pe. 202.—Second-Year Portuguese. 3 credits. The second half of the course Pe. 201-202.
10:00 daily and 4:00 T. Th. Bu-101. ATKIN.

PSYCHOLOGY

Psy. 305.—Social Psychology. 3 credits.
9:00 daily and 3:00 T. Th. Pe-114. O. WILLIAMS.

Influence of the social environment upon the mental, social, moral and emotional development of the child, the adolescent, and the adult. General orientation, typical and atypical forms of behavior, social stimulations and responses, social attitudes, social adjustments, language development, personality development, and social changes.

Psy. 312.—Psychology of Exceptional Children. 3 credits.
10:00 daily and 4:00 T. Th. Pe-114. O. WILLIAMS.

Individual differences, intelligence, feeble-mindedness, dull and backward children, superior and gifted children, speech and motor defects, sensory and neurological disorders, conduct problems, social and emotional maladjustments, and other topics concerning exceptional and mentally peculiar children.

GRADUATE COURSES

Psy. 512.—Psychology of Exceptional Children. 3 credits.
10:00 daily and 4:00 T. Th. Pe-114. O. WILLIAMS.

Offered with Psy. 312 with extra readings and reports for graduate students.

Psy. 515.—Social Psychology. 3 credits.
9:00 daily and 3:00 T. Th. Pe-114. O. WILLIAMS.

Offered with Psy. 305 with extra readings and reports for graduate students.

SCHOOL ART

Pc. 251.—Art for the Primary Grades. 2 credits.
1:00 to 3:00 M. W. F. Yonge Art Shop. MITCHELL.

Activities for the kindergarten, first, second, and third grades that interpret the underlying philosophy and the skills in art that are basic as a means of expression in large unit teaching.

Pc. 252.—Art for the Elementary Grades. 2 credits.
3:00 to 5:00 M. W. F. Yonge Art Shop. MITCHELL.

Activities for the fourth, fifth, and sixth grades that interpret the underlying philosophy and the skills in art that are basic as a means of expression in large unit teaching.

Pc. 301.—Creative School Art. 2 credits.
To arrange. Yonge Art Shop. MITCHELL.

A series of original projects based on the fundamental principles and factors of design.

SOCIAL STUDIES

Scl. 216.—American Civic Development. 3 credits.
11:00 daily and 5:00 T. Th. Pe-208. HANNA.

Continuation of Scl. 215.

Scl. 302.—Children's Social Studies. 3 credits.
8:00 daily and 2:00 T. Th. Yn-134. BARRY.

A continuation of Scl. 301.

SOCIOLOGY

Sy. 337.—Cultural Anthropology. 3 credits.
9:00 daily and 3:00 T. Th. Pe-4. THOMASON.

Physical anthropology: physical characteristics of prehistoric and modern man; race distinction; distribution of races; a critical analysis of racial theories—Aryanism, Nordicism, Nazism.

Sy. 344.—Marriage and the Family. 3 credits.
8:00 daily and 2:00 T. Th. Pe-4. MACLACHLAN.

The nature and development of domestic institutions. Problems of adjustment to modern conditions. Changes in marital and domestic relations with particular emphasis on preparation for marriage. The status of women and laws pertaining to marriage in Florida. Divorce, family disorganization, child training.

Sy. 424.—Criminology. 3 credits.
11:00 daily and 5:00 T. Th. Pe-4. THOMASON.

Nature and causes of crime; punishment, treatment, prevention. Sociological aspects of criminal law and procedure.

Sy. 490.—The South Today. 3 credits.
10:00 daily and 4:00 T. Th. Pe-4. MACLACHLAN.

The social resources and challenges of the modern South. Measures of Southern culture. The place of the South in the nation. Programs and plans for the region reviewed. A broad view of the foundations of Southern life.

GRADUATE COURSE

Sy. 560.—Special Topics. 3 credits.
To arrange. MACLACHLAN and STAFF.

Special topics in Sociology by arrangement with the instructor.

SPANISH

CSh. 34.—First-Year Spanish. 3 credits. The second half of the course CSh. 33-34.

9:00 daily and 3:00 T. Th. Bu-301. ASHTON.

Sh. 202.—Second-Year Spanish. 3 credits. The second half of the course Sh. 201-202.

8:00 daily and 2:00 T. Th. Bu-301. ASHTON.

Sh. 430.—Individual Work. 3 credits.

Conference. Bu-304. ASHTON.

Reading in special fields. The course may be repeated without duplication of credit.

GRADUATE COURSE

Sh. 530.—Individual Work. 3 credits.

Conference. Bu-304. ASHTON.

Readings and reports in fields chosen by the individual students. Mainly designed for graduate students desiring to gain special information on certain genres, movements or authors. This course may be repeated without duplication of credit.

SPEECH

Students taking courses in the Department of Speech must have completed the equivalent of C-3, or have the consent of their dean.

CSc. 33.—Effective Speaking. 3 credits.

9:00 daily and 3:00 T. Th. Pe-205. CONSTANS.

Sch. 311.—Speech Training for the Radio. 3 credits. Prerequisite or corequisite: CSc. 33.

11:00 daily and 5:00 T. Th. Pe-209. TEW.

Study of vocal considerations for all uses of the microphone; writing and presentation of announcements, addresses, and radio continuity; preparation of radio drama.

Sch. 413.—Training of the Hearing Handicapped. (Scientific Bases of Speech and Hearing.) 6 credits. Prerequisite: Sch. 417 or consent of the instructor.

8:00 to 10:00 daily. Class discussion. Pe-206. HALE.

2:00 to 3:00 or 3:00 to 4:00 M. T. Th. F. Clinic observation and practice. Pe-206.

Two hours per week. To arrange. Special lectures. Pe-209.

A course designed to train persons to work with the hard of hearing and the deafened. A study of the physical aspects of sound, and the anatomy and physiology of the organs of hearing. Methods of testing hearing with special emphasis on the use of the audiometer. Middle ear, nerve, tone and range deafness, auditory aphasia and other hearing handicaps will be studied diagnostically and therapeutically. Special attention will be given to improving the speech of the hearing handicapped by the following methods: moto-kinaesthetic, phonetic placement, mechanical hearing aid, and lip reading systems. Students will observe and work with the hearing handicapped patients in the Speech and Hearing Clinic. Special readings and projects will be required on certain experimental aspects of the field.

Sch. 420.—Teaching of Speech. 3 credits. Prerequisite: CSc. 33 or teaching experience.

10:00 daily and 4:00 T. Th. Pe-208. TEW and CONSTANS.

A course designed primarily for teachers. The place of speech education in the secondary school; organization of materials and activities; methods of presentation; analysis of state-

adopted text-book; discussion of specific problems that arise in the teaching of public speaking, debate, auditorium programs, oral reading, and dramatics.

Speech and Hearing Clinic.

2:00 to 4:00 M. T. Th. F. Pe-206 and 210. HALE and ASSISTANTS.

Children and adults from the surrounding area who have been receiving treatment in the Clinic during the regular school year will be in attendance. Persons from anywhere in the state may come during the summer and receive diagnosis and treatment. The work of the clinic will be supervised by a staff member of the Department of Speech who will be assisted by experienced clinicians.

GRADUATE COURSE

Sch. 513.—Scientific Bases of Speech and Seminar in Hearing. 6 credits.

8:00 to 10:00 daily and clinical practice. Offered with Sch. 413 with extra readings, reports, and research. HALE.

RRF	Memo	ORC	FF

APPLICATION FOR ROOM RESERVATION IN UNIVERSITY RESIDENCE HALLS

To be filled out by each person who is planning to live in the University operated Residence Halls for the 1945 Summer Session and mailed to the Director of Residence, University of Florida, Gainesville, with check or money order—made payable to the University of Florida—for the Room Reservation Fee of $5.00 per person.

WRITE CLEARLY Date .....

CHECK ONE: I plan to attend ☐ 1st Term Only ☐ 2nd Term Only ☐ Both Terms

Mr.
Miss .....
Mrs. (First Name) (Husband's Initials) (Middle Name) (Last Name)

Address .....
(Street and Number) (City) (State)

Present Mail Address .....
(If different from Home Address)

Have you lived in one of our halls previously? ..... When? ..... Which? .....

Birthdate ..... Religious affiliation or preference .....
(Month) (Day) (Year)

College ..... Vocational Preference .....

In case of accident, NOTIFY .....

Address .....

— — — — — — — — — — — — — — — — — — — —

ROOM PREFERENCES: State clearly below your preferences as to room type, floor, exposure, rate, and housing unit (if any). Be clear and concise.

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.....

Name of ROOM-MATE PREFERRED: .....

Address .....
(NOTE: Room-mate must file separate application and pay Room Reservation Fee also.)

— — — — — — — — — — — — — — — — — — — —

If this application is accepted and I am assigned to a room in one of the University of Florida Residence Hall units I agree to abide by the University rules and regulations governing student life and to cooperate with the Director of Residence in maintaining the best possible living conditions in the Residence Halls.

Signature of Applicant .....

(Use reverse of this application form to give any further information about yourself which may affect your residence.)

REQUEST FOR PERMISSION TO LIVE IN A PRIVATE ROOMING HOUSE

To the Office of the Dean of Students:

I hereby request permission to be allowed to live in a rooming house not operated by the University during first term, second term, both terms. of the 1945 Summer Session. (Underscore terms desired.)

In support of this request, the following considerations are offered:

1. I am ..... years of age or over.

2. I have already received a ..... degree and am now taking graduate work.

3. I have been self-supporting during the past year through the following employment:

   .....

   .....

4. If granted permission to live in a private rooming house, I will live in the house appearing on the Approved Rooming House List at the address below:

   .....

   (address) (householder)

5. I desire to room in a private rooming house for the following reason: .....

   .....

   .....

   .....

   .....

   .....

(Signed) .....

Address .....

.....

Date .....

Approved: .....

Disapproved: .....

APPLICATION BLANK—1945 Summer Session—University of Florida

(If you wish to attend the first or both terms of the 1945 Summer Session this form must be filled out completely and mailed to the Registrar before June 5. If you wish to attend the second term only it should be mailed before July 14.)

PART I—TO BE FILLED OUT BY ALL APPLICANTS

Name Mr. / Mrs. / Miss ....

*(Last Name) **(First Name) **(Middle Name) Married Women please give husband's initials

Mailing Address until June 6 .....

Home Address .....

St. & No., Box No., or Rural Rt. City County State

Give YOUR occupation last year (Check ONE) .....H. S. Student; .....College Student; .....Elem. Teacher; .....Jr. H. S. Teacher; .....H. S. Teacher; .....School Superintendent; .....Principal; .....College Teacher. If some other occupation, please name: .....

.....

Are you a regular student at some other college or university who desires to take work at our summer session to transfer to this other institution? ..... (yes or no) If your answer is yes, give the name of the other institution .....

I wish to register for the term beginning June 7 July 19 (encircle one)

ADMISSION—Check classification in which you wish to register. (See page 10.)

A. Persons with bachelor's degrees: .....Graduate School; .....Unclassified.

B. Persons with more than two years college credit: .....School of Architecture; .....College of Arts and Sciences; .....College of Business Administration; .....College of Education; .....College of Engineering; .....College of Law; .....Unclassified.

C. Persons with less than two years college credit: .....University College; .....Unclassified.

Have you earned any credit through the General Extension Division of the University of Florida? ..... (yes or no)

Have you attended the University of Florida before? ..... (yes or no) (IF YOUR ANSWER IS NO, DISREGARD THE REMAINDER OF PART I BUT FILL OUT ALL OF PART II ON THE BACK OF THIS PAGE.) Give date of last session you attended here ..... Have you attended any other college or university since you last attended the University of Florida? ..... (yes or no) If your answer is yes, list the institutions you have attended since attending the University of Florida and give dates of attendance .....

STUDENTS WHO PREVIOUSLY HAVE ATTENDED THE UNIVERSITY OF FLORIDA NEED NOT FILL OUT PART II

*If you have registered at the University of Florida under any other names, please list below.
**Married women will please use their own first and middle names.

Part II on the Back of This Page Must Be Filled Out by All Applicants Who Have Not Attended the University Before

C

C P FS

ADM

Blanks out 1

Blanks in 1

Blanks out 2

Blanks in 2

PART II—TO BE FILLED OUT ONLY BY APPLICANTS WHO HAVE NOT ATTENDED THE UNIVERSITY BEFORE

Date of birth ..... Place of birth ..... Race .....
month day year

Religious preference ..... Are you a member? .....
yes or no

High School attended ..... Did you graduate? ..... Date of graduation .....
yes or no

Have you attended any college or university? ..... If the answer is yes, list the institutions you have attended:
yes or no

Institution	Location	Dates of Attendance

Do you plan to continue your work at the University of Florida until you receive a degree? .....
yes or no

Give your FATHER'S occupation (if retired or deceased give occupation while active and living) .....

UNIVERSITY OF FLORIDA
Department of Speech
College of Arts and Sciences

Offers a Concentrated Program of Study

Correction of Speech Defects

and the

Training of the Hearing Handicapped

In conjunction with the

1945 SUMMER SESSION

First Term June 7 - July 20

Second Term July 20 - August 31

1945

THE UNIVERSITY RECORD

VOL. XL, SERIES I No. 3, Extra No. 1 MARCH 15, 1945

Published monthly by the University of Florida, Gainesville, Florida
Entered in the post office in Gainesville, Florida, as second-class matter, under Act of Congress, August 24, 1912

Office of Publication, Gainesville, Florida

UNIVERSITY ADMINISTRATIVE OFFICERS

JOHN J. TIGERT, M.A. (Oxon.), LL.D., Ed.D., D.C.L., D.Litt., L.H.D., President of the University

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KLEIN HARRISON GRAHAM, LL.D., Business Manager

RICHARD SADLER JOHNSON, B.S.P., Registrar

INSTRUCTIONAL AND CLINICAL STAFF

*H. P. CONSTANS, M.A., LL.B., Head Professor of Speech

*L. L. HALE, Ph.D., Associate Professor of Speech

R. E. TEW, M.A., Assistant Professor of Speech

MARGARET C. MCCLELLAN, B.A.E., Clinical Assistant

SPECIAL LECTURERS

C. M. ANDREWS, B.A., State Director, Vocational Rehabilitation Service

C. C. BEASLEY, M.A., State Supervisor, Vocational Rehabilitation Case Service

EARL R. CARLSON, M.D., Director, School of Corrective Motor Education

ALFRED CRAGO, Ph.D., Professor of Educational Psychology

CHARLOTTE DUNN, M.A., Teacher in the P. K. Yonge Laboratory School

F. M. HALL, M.D., M.P.H., Director Alachua County Health Department

DONALD MORRISON, D.D.S., Orthodontist

WALTER E. MURPHREE, M.D., Assistant University Physician

STUART SCOTT, M.D., Otologist

CLARENCE J. SETTLES, Ph.D., President, Florida State School for the Deaf and the Blind

G. C. TILLMAN, M.D., F.A.C.S., University Physician and Surgeon

R. C. WILLIAMSON, Ph.D., Head Professor of Physics

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* Member of the American Speech Correction Association.

LECTURE SUBJECTS

We are glad to be able to announce that we have secured a group of experts in fields closely related to speech who will deliver a series of lectures on selected phases of the work.

The History and Philosophy of Special Education
The Mental and Emotional Problems of the Physically Handicapped
The Social Problems of the Physically Handicapped
Speech Correction Methods at the Primary Level
Speech Correction and Oral Surgery
Types of Oral Malformations and Orthodontic Therapy
Physiotherapy in Relation to Spastic Paralysis
Correcting the Speech of the Spastic
The State's Program for the Education of the Physically Handicapped
The Nature, Measurement, and Recording of Sound
The Operation of the Vocational Rehabilitation Case Service
The Etiology of Hearing Losses
The County Health Service and the Physically Handicapped
The Program for the Hearing Handicapped at the School for the Deaf

A group of Latin Americans learn English by the phonetic approach.

PRELIMINARY STATEMENT

For a number of years the Department of Speech of the University of Florida has been working steadily in the development of a three-fold educational program: the testing of all entering freshmen for speech and hearing handicaps; the diagnostic and remedial treatment of speech and hearing handicapped persons (this includes children and adults who are not enrolled as students in the University); and the professional training of personnel to work with the handicapped children in the public schools of this State. Moreover, we have carried on a program of teaching spoken English to the Latin American students who are enrolled in the University. The demand for the professionally trained person is a present and ever increasing one; as a definite attempt to meet this demand we are offering during the Summer Session of 1945 an opportunity to properly qualified persons to receive concentrated training in the correction of speech and hearing handicaps. Our offering of this concentrated course is made possible largely through the very substantial support given by the Florida Society for Crippled Children and Physically Handicapped Persons, Inc., with headquarters at Miami, Mr. W. L. Philbrick, President, and Mrs. Margaret Z. Brown, secretary.

LEGAL PROVISIONS FOR THE EDUCATION OF PHYSICALLY HANDICAPPED CHILDREN

The 1941 Legislature of the State of Florida passed a bill (Chapter 20910, Laws of Florida) providing for the education of the physically handicapped children in special classes. This forward-looking piece of legislation enables the State Department of Education to provide funds toward the cost of each instructional unit. Two of the types of physical handicaps included in the law are serious speech defects and hearing deficiencies.

CERTIFICATION OF TEACHERS OF THE PHYSICALLY HANDICAPPED

The requirements for certificates to teach handicapped children have been established by the State Department of Education and are being administered by the State Bureau of Vocational Rehabilitation. The requirements as listed in Certificate Bulletin A, issued in February of 1941, have been supplemented in

some instances. All such certificates are valid for a period of one year only, but may be extended by compliance with such requirements as the State Board of Education may make.

FACILITIES AVAILABLE AT THE UNIVERSITY OF FLORIDA

The Department of Speech has microphone, recording and play-back equipment; anatomical and physiological charts, diagrams and models; and an audiometer. The Library has in its stacks the standard textbooks in the field of speech and those adjacent thereto as well as a rather complete file of professional periodicals.

DESIRABLE FOUNDATION TRAINING

While previous formal instruction in speech and allied fields is desirable, it is more important to consider the individual's experience and purpose. He should be interested in teaching as a profession, should expect to acquire a degree, and should have an academic record that is at least average—preferably well above that. If the student is deficient in academic background, he should not only be willing but actually desirous of increasing his knowledge by enrolling in such courses as are deemed advisable.

CONDUCT OF THE COURSES

In the term of the Summer Session in which each course is taught the class will meet daily from 8 to 10 in the morning for a class discussion; from 2 to 4 on Tuesday and Thursday afternoons or equivalent time for clinical observation and practice; and for a one-hour period on two afternoons when special lecturers will be presented. Individual conferences will be held at regular intervals.

DESCRIPTION OF THE COURSES
FIRST TERM (JUNE 7 - JULY 20)

Sch 419. Correction of Speech Defects. 6 credits. Hale.
Prerequisite: CSc 33 or consent of the instructor.

A course in the recognition and treatment of defects of speech together with a study of their underlying pathologies. A brief review of the speech mechanism and the IPA sound system. Diagnostic methods and specific therapeutic techniques

will be presented for the following types of speech defects: articulatory, quality, pitch, dialect, delayed speech, infantile perseveration, cleft palate, stuttering, paralysis, dysphasia, cerebral palsy, and emotional instability. The course will be conducted by the lecture, class discussion and clinical demonstration method. The students will observe and work with patients in the Speech and Hearing Clinic.

GRADUATE COURSE

Sch 519. Advanced Speech Correction. 6 credits. Hale.

A study of the pathologies of speech together with the diagnostic and therapeutic procedures; clinical procedure; preparation of a working manual and a clinical program for a given area. This course will be offered with Sch 419 with extra readings, reports, and research.

SECOND TERM (JULY 20 - AUGUST 31)

Sch 413. Training of the Hearing Handicapped. 6 credits. Hale.

Prerequisite: Sch 417, or Sch 419, or consent of the instructor.

A course designed to train persons to work with the hard of hearing and the deafened. A study of the physical aspects of sound, and of the anatomy and physiology of the organs of hearing. Methods of testing hearing with special emphasis on the use of the audiometer. Middle ear, nerve, tone, and range deafness, auditory aphasia and other hearing handicaps will be studied diagnostically and therapeutically. Special attention will be given to improving the speech of the hearing handicapped by the following methods: moto-kinaesthesia, phonetic placement, mechanical hearing aid, and lip reading systems. Students will observe and work with the hearing handicapped patients in the Speech and Hearing Clinic.

GRADUATE COURSE

Sch 513. Scientific Bases of Speech and Hearing. 6 credits. Hale.

A survey in certain related fields of the scientific material which is fundamental to understanding normal speech and speech abnormalities; methods of testing hearing; speech therapies for the hard of hearing. This course will be offered with Sch 413 with extra readings, reports, and research.

SPEECH AND HEARING CLINIC

In connection with the concentrated courses of study described above, the Department of Speech will conduct a Speech and Hearing Clinic for University students and non-University patients. Children and adults from the surrounding area who have been receiving treatment in the Clinic will be in attendance. Persons from anywhere in the state may come during the Summer Session and receive diagnosis and treatment. The work of the Clinic will be supervised by a staff member of the Department of Speech who will be assisted by experienced clinicians. Persons with a speech or hearing handicap desiring diagnosis and treatment in the Speech and Hearing Clinic should address inquiries to Dr. Hale, Department of Speech, University of Florida, Gainesville, Florida.

OTHER SPEECH COURSES OFFERED DURING THE SUMMER SESSION

CSc 33. Effective Speaking. 3 credits. Offered each term.

Sch 301. Advanced Public Speaking. 3 credits. Offered first term.

Sch 404. Dramatic Production. 3 credits. Offered first term.

A student's hearing is tested with a pure tone audiometer.

Sch 311. Speech Training for the Radio. 3 credits. Offered second term.

Sch 420. Teaching of Speech. 3 credits. Offered second term.

Persons desiring further information on the Program of Study for the Speech or Hearing Handicapped or the other courses in the Department of Speech should address such inquiries to Mr. R. S. Johnson, the Registrar, or to Professor H. P. Constans, Head of the Department of Speech, University of Florida, Gainesville, Florida.

The University Record

of the

University of Florida

Bulletin of the

School of Trade and Industrial Education

DAYTONA BEACH, FLORIDA

1945

SPONSORED JOINTLY BY THE UNIVERSITY OF FLORIDA AND THE STATE DEPARTMENT OF EDUCATION

First Term--June 11 to June 30
Second Term--July 2 to July 21
Third Term--July 23 to Aug. 11

VOL. XL., SERIES I No. 4 APRIL 1, 1945

PUBLISHED MONTHLY BY THE UNIVERSITY OF FLORIDA, GAINESVILLE, FLORIDA

ENTERED IN THE POST OFFICE IN GAINESVILLE, FLORIDA, AS SECOND-CLASS MATTER, UNDER ACT OF CONGRESS, AUGUST 24, 1912

OFFICE OF PUBLICATION, GAINESVILLE, FLORIDA

The Record Comprises:

The Reports of the President to the Board of Control, the bulletins of information, announcements of special courses of instruction, and reports of the University Officers.

These bulletins will be sent gratuitously to all persons who apply for them. The applicant should specifically state which bulletin or what information is desired. Address

THE REGISTRAR,
University of Florida,
Gainesville, Florida

CALENDAR 1945

First Term

June 11, Monday, 8 a.m.	Registration for the First Term.
June 12, Tuesday, 8 a.m.	Classes begin.
June 13, Wednesday	Last day for registration for the First Term, for changing schedules, or for adding courses. Late registration fee $5.
June 20, Wednesday	Last day for dropping courses without receiving grade of E and being assessed failure fee.
June 27, Wednesday	Last day to file application for removal of deficiencies, or for extension of Trade and Industrial Education Certificates.
June 30, Saturday	First Term ends. All grades are due in office of the Registrar by 5 p.m.

Second Term

July 2, Monday, 8 a.m.	Registration for the Second Term.
July 3, Tuesday, 8 a.m.	Classes begin. Late registration fee $5.
July 3, Tuesday, 4 p.m.	Last day for registration for the Second Term, for changing schedules, or for adding courses.
July 10, Tuesday	Last day for dropping courses without receiving grade of E and being assessed failure fee.
July 16, Monday	Last day to file application for removal of deficiencies, or for extension of Trade and Industrial Education Certificates.
July 21, Saturday	Second Term ends. All grades are due in the office of the Registrar by 5 p.m.

Third Term

July 23, Monday, 8 a.m.	Registration for the Third Term.
July 24, Tuesday, 8 a.m.	Classes begin. Late registration fee $5.
July 24, Tuesday, 4 p.m.	Last day for registration for the Third Term, for changing schedules, or for adding courses.
July 31, Tuesday	Last day for dropping courses without receiving grade of E and being assessed failure fee.
Aug. 6, Monday	Last day to file application for removal of deficiencies, or for extension of Trade and Industrial Education Certificates.
Aug. 11, Saturday	Third Term ends. All grades are due in the office of the Registrar by 5 p.m.

OFFICERS OF ADMINISTRATION

JOHN J. TIGERT, M.A. (Oxon.), LL.D., Ed.D., D.C.L., D.Litt., L.H.D., President of the University

COLIN ENGLISH, M.A., LL.D., Ed.D., State Superintendent of Public Instruction

TOWNES RANDOLPH LEIGH, Ph.D., D.Sc., Acting Vice-President of the University and Dean of the College of Arts and Sciences

JAMES WILLIAM NORMAN, Ph.D., Dean of the Summer Session

ROBERT D. DOLLEY, M.S., Director of the School of Trade and Industrial Education

THOMAS MARSHALL SIMPSON, Ph.D., Dean of the Graduate School

RICHARD S. JOHNSON, B.S.P., Registrar

KLEIN HARRISON GRAHAM, LL.D., Business Manager

G. B. SIMMONS, Ph.D., Acting Dean of the College of Education, Gainesville

Assistants in Administration

EMMA WISE, B.S., Administrative Assistant, Gainesville

JEAN BRADLEY HAMNER, B.S., Administrative Assistant

LUCILLE T. MOORE, B.S., Librarian

MAUDE GRIFFITH WOODS, Assistant Director of Instruction

GENERAL INFORMATION

For Whom the School Is Intended

Admission is limited to the following classes of students:

1. Those engaged in teaching Trade and Industrial and Distributive Education or courses subsidized from Smith - Hughes or George - Deen funds.
2. Novice or apprentice teachers meeting all the requirements for certification in accordance with the provisions of the Florida State Plan for Trade and Industrial and Distributive Education with the exception of the required teacher training courses.
3. Superintendents or school officials exercising control over a subsidized program of Trade and Industrial and Distributive Education.
4. Directors, Supervisors and Coordinators of Trade and Industrial and Distributive Education or other subsidized vocational services.
5. Those employed in industrial or distributive occupations who wish to take technical courses and who are not particularly interested in college credit or teaching.
6. Those engaged in teaching or supervising any phase of the War Training Program.

To offer educational opportunity to these groups of students is the sole purpose of the School, and the courses have been planned especially to take care of their needs. Teachers and students interested in other branches of learning should attend the regular Summer Session at the University of Florida in Gainesville.

Societies and Clubs

T. and I. Club

The T. and I. Club is a student organization composed of both men and women engaged in Trade and Industrial Education. Its purpose is to promote good fellowship among its members and the student body. The club sponsors a dance and an outing regularly once a week throughout the session along with numerous other social functions.

State Clubs

There are a number of state clubs the membership of which is composed of students from the various states. These clubs are very active during the entire summer session in the promotion of activities of all kinds calculated to help students to become better acquainted and stimulate a friendly hospitable atmosphere about the school.

An interesting feature of the State Clubs' activities is an informal All-States dinner held on the second Friday of the second term, in which all faculty and student personnel participate.

Iota Lambda Sigma

Iota Lambda Sigma is a national honorary professional fraternity for persons serving with distinction in Trade and Industrial or Industrial Arts Education. To be eligible for membership in the Kappa Chapter of the University of Florida one must be outstanding in one of these two vocational fields with a scholastic average of B or better.

Tau Gamma Sigma

Tau Gamma Sigma is a professional honorary Industrial Education fraternity for women. Both the Grand and Alpha chapters are located at the University of Florida. The purpose of this fraternity is to recognize high scholastic ability and professional attainment in the field of Industrial Education.

Eta Mu Pi

Eta Mu Pi is a National Honorary Retailing Fraternity. It is the only retailing fraternity in existence. Membership to the Gamma Chapter of the University of Florida is limited to men and women attaining a high scholastic record in Retailing and Distributive Education courses.

School News

The official news of the School of Trade and Industrial Education is published each week in a special edition of one of the Daytona Beach daily papers. Special news items, notices, and announcements reach the students and faculty through this official publication.

Employment

The School of Trade and Industrial Education does not maintain an employment bureau as such. It does, however, interest itself in finding employment for capable qualified individuals and in recommending suitable personnel when requested to do so. The School has placed nearly one hundred per cent of the students trained.

Duplicating Service

Clerical work and duplicating for the school and faculty members is done on short notice. Work to be typed or mimeographed is brought to the school office for handling. Students may have typing and mimeographing produced at nominal cost.

Credits

Students who qualify for entrance in the School of Trade and Industrial Education in accordance with the provisions limiting classes of students to be served, may take the courses offered for college credit or to satisfy certification requirements, or both, or for no credit at all.

Credits earned in the School of Trade and Industrial Education will apply as residence credit at the University towards the degree of Bachelor of Science in Education, with a major in Trades and Industries or Distributive Education. **Students who have attended another institution and now wish to work towards this degree at the University of Florida should see the requirements for admission to advanced standing.**

The maximum number of credits a student may earn in a single term is four for undergraduate students, and three for graduate students. All students including those not desiring college credit must comply with the requirements listed on pages 6 and 7 of this bulletin.

Certification

All courses have been approved by the Florida State Board for Vocational Education and may be used towards satisfying teacher-training requirements for certification or for extension of certificates.

Florida teachers who have certification deficiencies or who wish to satisfy certification extension requirements should study the bulletin of certification requirements for Trade and Industrial and Distributive Education before registering. Teachers from other states should consult their State Supervisors concerning certification regulations.

Fees

A registration fee of $14 a term will be charged each student whether he is from Florida or from another state. There is no tuition charge.

A late registration fee of $5 is charged students registering late. See calendar page 2.

Auditors:—Auditor permits may be secured for $5 entitling the holder to attend 18 regular class periods of any class in the school subject to the approval of the respective instructors. Auditor permits are valid throughout the session. Individuals will be limited to one auditor permit per term.

Expenses

Wartime conditions prevail in Daytona Beach along with the usual attendant housing and food complications. Students should plan to arrive several days in advance to provide sufficient time to secure living accommodations.

RECREATION

Because the enrollment in the School for Trade and Industrial Education is drawn largely from persons employed twelve months in the year, every effort has been made to select a place offering not only the facilities for study but those for spending an ideal vacation. Daytona Beach meets these requirements.

Recreational possibilities abound at Daytona. There is the beach with its motoring length of twenty-three miles and low tide width of five hundred feet for those who enjoy surf bathing and beach activities. Fishing is excellent from the pier, or by boat on the Halifax, or in the inland lakes a short drive from Daytona. Golf, tennis, handball, lawn bowling, shuffleboard, trap and skeet shooting may be enjoyed by those who prefer these sports.

A number of points of interest, such as St. Augustine, the oldest city in the United States — Silver Springs, the largest spring in the world — Tropical Jungles — the old mission ruins — the Florida Cypress Gardens — Bok Tower — and the Fountain of Youth, are only a few miles from Daytona Beach and can be reached by bus in a very short time over some of Florida's most scenic highways.

The average summer temperature at Daytona Beach is 79 degrees.

ADMISSION

A. Students wishing to receive college credit must meet the entrance requirements of the University of Florida. The requirements are:

1. For students who are entering college for the first time.
   Graduation from an accredited high school.
2. For students who are transferring from another institution and who expect to receive a degree from the University of Florida.
   Official transcripts sent directly to the Registrar from all institutions previously attended. (Teachers' certificates or transcripts presented by students will not suffice.)
3. For students who regularly attend another college or university and who are attending the University of Florida School of Trade and Industrial Education only for the purpose of securing credits to be transferred to the institution regularly attended.
   A statement of Honorable Dismissal from the institution last attended.

It is the student's responsibility to supply the proper credentials as outlined in numbers 1, 2, or 3 above.

The standing of each student entering the School of Trade and Industrial Education with advanced standing will be considered individually, with the best interests of the student always in mind. A program for the completion of the work for a degree either through the University College, or in the College of Education, will be determined at a conference with the Board of University Examiners, and the Director of the School of Trade and Industrial Education.

B. Students not wishing to work toward a degree and who do not desire a transcript of work completed must present evidence of their eligibility for admission in accordance with one of the provisions limiting the class of students to be served by the School (see page 3).

Residence Requirements

1. The minimum residence requirement for the baccalaureate degree is two regular semesters, or one regular semester and four three-week summer terms or nine three-week summer terms. New students offering advanced standing must meet this requirement after entrance to the University. Students who break their residence at the University by attending another institution for credit toward the degree must meet this requirement after re-entering the University.

2. For the master's degree a minimum of one academic year, or 33 weeks in summer sessions, is necessary to satisfy the residence requirement.

3. Students are required to complete the last thirty credit hours applied towards the baccalaureate degree during regular residence in the college from which the student is to be graduated. Exception to this regulation may be made only upon written petition approved by the faculty of the college concerned, but in no case may the amount of extension work permitted exceed more than twelve of the last thirty-six hours required for a baccalaureate degree.

Student Responsibility

Each student must assume full responsibility for registering for the proper courses and for fulfilling all requirements for his degree. Students should confer with the Director of the school several days before registration regarding choice of courses.

Seniors must file in the Office of the Registrar formal application for a degree and must pay the diploma fee very early in the term in which they expect to receive the degree.

Each student is responsible for every course for which he registers. **Courses can be dropped or changed only with the approval of the Director of the school and by presentation of the cards authorizing the change at the Office of the Registrar.**

THE UNIVERSITY COLLEGE

The University College has been organized to administer the work of the freshman and sophomore years in the University of Florida. All beginning students will register in this college.

The average student will be able to complete the work of the University College in two years, while superior students may finish the curriculum in a shorter time, and others may find it necessary to remain in the University College for a longer period.

A program of general education is worked out for all students. In this program the University recognizes that broad basic training is needed by all students alike. On this foundation that has meaning and significance to the student, he may add the special training of the colleges and professional schools of the Upper Division, or drop out of the University with something definite and helpful as he begins his adult life as a citizen.

Comprehensive Examinations

The student must successfully pass comprehensive course examinations — six or more and sufficient electives — to complete the work of the University College. These examinations, administered by the Board of University Examiners, will be given in January, May and August of each year. University College students who are not enrolled in a course at the time the examination is given and who wish to take any comprehensive examination, must apply in writing to the Board of University Examiners for permission at least one month before the announced date for the examination. Before the application is accepted, the applicant will be required to furnish the Board of Examiners with proof that this privilege has not been used to avoid the payment of the usual University fees. A student must be familiar with the work of the various courses and be able to think in the several fields in a comprehensive way in order to pass these examinations. Six hours time, divided into equal parts, will be required for each examination covering a full year course.

Should a student fail a comprehensive course examination, he may qualify to repeat the examination by repeating the course, or by further study. Evidence of additional preparation must be submitted to the Board of University Examiners with an application in writing to repeat the examination.

Graduation

When a student has completed his program in the University College and has passed the comprehensive examinations in the six basic courses and met the other requirements of the University College curriculum, he will be granted the Associate of Arts Certificate.

SCHOOL OF TRADE AND INDUSTRIAL EDUCATION

The Bachelor's Degree

Requirements:

1. Must be regularly admitted to the University.
2. Must have completed one year of successful teaching experience in an approved program of Trade and Industrial Education. This experience may be acquired after the student has become a candidate for the degree.
3. Must have satisfied the residence and other routine requirements of the University.
4. Must have an average of "C" or higher in all work counted toward the degree.
5. Must satisfactorily complete the curriculum requirements outlined below.

PROGRAM OF STUDY LEADING TO THE DEGREE OF BACHELOR OF SCIENCE IN EDUCATION WITH A MAJOR IN TRADE AND INDUSTRIAL EDUCATION

I. For those students graduating from the University College of the University of Florida, completion of A and B listed below:

A. University College Program:*

C-1 American Institutions
C-2 The Physical Sciences
C-3 Freshman English
C-41 Practical Logic
C-42 Fundamental Mathematics
C-5 The Humanities
C-6 Biological Science

Electives in Education	6 semester hours
**Electives	16 semester hours

B. Upper Division Program:

Education	9 semester hours
Trade and Industrial Education	22 semester hours
**Approved Electives	29 semester hours
Total	60 semester hours in the Upper Division.

II. For those students who do not graduate from the University College of the University of Florida (Note: The following program is outlined for the convenience of transfer students. The Board of University Examiners may waive certain of the following requirements if the record of the student warrants special consideration):

Physical and Biological Science	48 semester hours
English Composition	
Literature	
Social Studies	
Psychology or Philosophy	
Mathematics	
Education	15 semester hours
Trade and Industrial Education	22 semester hours
**Approved Electives	39 semester hours
Total	124 semester hours

PROGRAM OF STUDY LEADING TO THE DEGREE OF BACHELOR OF SCIENCE IN EDUCATION WITH A MAJOR IN DISTRIBUTIVE EDUCATION

Note: The same provisions relating to the bachelor's degree with a major in Trade and Industrial Education will apply to the degree with a major in Distributive Education except that the major study shall be in Distributive Education courses and the experience requirements shall be in the Distributive Education field.

*Deviations from this program may be permitted by the Board of Examiners.

**A minimum of 22 semester hours is required in Trade and Industrial Education for a major. For approved electives in the Upper Division a person may take additional work in Trade and Industrial Education, but not to exceed 18 semester hours, since not over 40 semester hours of the entire four-year program can be in Trade and Industrial Education.

THE GRADUATE SCHOOL

All graduate study in all of the colleges and schools of the University is administered by the Graduate Council.

REQUIREMENTS FOR ADMISSION TO GRADUATE STUDY IN THE SCHOOL OF TRADE AND INDUSTRIAL EDUCATION

1. A bachelor's degree from a standard college or university.
2. At least one year's continuous employment in an approved Trade and Industrial program for those wishing to major in Trade and Industrial Education, or one year's continuous employment in an approved Distributive Education program for those wishing to major in Distributive Education. The programs in which the experience is secured must meet all the requirements of the State Plan for Trade and Industrial or Distributive Education for the state in which the applicant was employed.
3. Eight semester hours in approved teacher training courses in Trade and Industrial Education of which two semester hours shall be in Supervision, two semester hours in survey procedures, and four semester hours in courses covering curriculum construction in and bearing directly upon the branch of service in which the applicant has been employed.
4. Three or more years of continuous employment in an approved Trade and Industrial or Distributive Education program may upon the discretion of the head of the department be accepted in lieu of part of the eight semester hour requirement.
5. Presentation of satisfactory evidence that graduate study may be pursued with advantage to the University and the applicant.
6. Candidates must have completed three years of successful experience in an approved program of Trades and Industries or Distributive Education before a degree can be conferred.

Registration

A complete transcript of all undergraduate and graduate work must be transmitted directly to the Registrar's office by the Registrar of the institution in which the credits have been earned. Transcripts presented by students cannot be accepted.

The transcript should be in the Registrar's office at least **one month** before the opening of the school. If it appears from the student's record that he is eligible for graduate study he will be referred to the Director of the School of Trade and Industrial Education who will become the professor of the major subject and will plan the courses the student is to take.

Students are urged to file transcripts ahead of the beginning of the school. **Under no circumstances will students be permitted to register for credit who have not fully complied with this request.** Transcripts submitted directly by students are not acceptable. Transcripts must be transmitted by the registrars of the institutions in which the credits were earned.

REQUIREMENTS FOR THE MASTER'S DEGREE WITH MAJOR IN TRADE AND INDUSTRIAL EDUCATION

Degree Offered. — Master of Arts in Education.

Residence Requirements. — See residence requirements page 7 this bulletin.

Transfer of Credits. — Under certain conditions transfer of a limited number of credits to the University will be allowed. Transferred credits may reduce the course requirements but not the residence, and work they represent shall be included in the final examination.

Grades. — Passing grades for students registered in the Graduate School are A and B. All other grades are failing.

Work Required. — Twenty-four semester hours are required for the degree at least one half of which shall be in Trade and Industrial Education and the remainder in related subject matter fields. The major study shall be in courses numbered 500 and designated strictly for graduates. However, in case of related subject matter, courses numbered 300 and above may be taken upon the approval of the Director of the School and the Dean of the Graduate School.

The student shall be guided entirely in the research procedure, preparation, organization and form of the thesis by the Supervisor of Research. The student should consult the Supervisor of Research immediately after admittance to the Graduate School concerning these matters. The thesis problem should be selected as soon as possible and be approved by the major professor. A statement of the problem, the reason for its selection and an outline of the procedure to be followed in its solution shall be submitted to the Student's Advisory Committee for the committee's consideration and approval. All Graduate students are required to register for TDE. 508, Research in Industrial and Distributive Education, before or by the time they have completed twelve semester hours of graduate study. This course carries no credit and may be carried in addition to the regular schedule of work.

Admission to Candidacy

Whether the student has been provisionally admitted or regularly admitted to graduate study, the Supervisory Committee shall review his entire academic record at the end of the first semester or summer session of residence work and fix definitely the additional residence or course requirements. Upon ratification of the action of the Supervisory Committee by a formal vote of the faculty, the student will be admitted to candidacy for the degree subject to the approval by the Supervisory Committee of the thesis problem selected.

Supervisory Committee. — The Supervisory Committee shall consist of the Director of the School of Trade and Industrial Education, the Dean of the Graduate School and the Supervisor of Research.

General Examinations. — It will be the duty of the Supervisory Committee, when all work is completed or practically completed, including the regular courses and the thesis, to conduct a general examination, either written or oral, or both, to embrace: first, the thesis; second, the major subject; third, the minor or minors; fourth, questions of a general nature pertaining to the student's field of study. The Committee shall report in writing not later than one week before the time for the conferring of the degree if all work has been completed in a satisfactory manner and the student is recommended for the degree.

Work Done in Absentia. — Credit is not given for work done in absentia. No courses may be taken for credit by extension or correspondence.

DESCRIPTION OF COURSES

TIME SCHEDULE

DISTRIBUTIVE OCCUPATIONS EDUCATION

DOE. 201.—Retail Organization and Management. 2 credits. 8:00 to 10:00 daily. Room 18. Second term.

The merchandising organization, retail outlets, buying, wholesale selling and stock control plan; case studies in merchandising; management problems.

DOE. 214.—Retail Copy Writing. 2 credits. 8:00 to 10:00 daily. Room 11. First term.

Repetitive practice in writing retail advertising copy. The following factors will be considered: the purposes and characteristics, principles of construction, merchandise facts, selecting theme, customers' point of view, suitable copy approach, the writing of promotional, service, prestige, price line, bargain, utility, human interest, and rationalization copy; head lines.

DOE. 215.—Interior Decorating. 2 credits. 8:00 to 10:00 daily. Room 14. Third term.

The application of principles of color and design as employed by decorators, architects and designers. The following subjects will be covered: floors, floor coverings, walls, ceilings, fabrics, historical transition of decoration by periods, contemporary decoration and special problems.

DOE. 216.—Window Display. 2 credits. 10:00 to 12:00 daily. Room 18. Second term.

The practical application of artistic treatment in display of all types of merchandise. Repetitive training in arranging the window display. A full-sized display window in the school will be used by students taking this course.

GRADUATE COURSES

DOE. 509.—Retail Merchandising. 1½ credits. 12:30 to 2:30 daily. Room 18. Second term.

Deals with the tools that buyers and merchandise managers use daily in manipulating their purchases to make a profit. The subject matter includes markup, terms and datings, cost method of figuring profit, retail method of inventory, markdowns and shortages, invoice and importing mathematics, stockturn, and merchandise planning.

DOE. 511.—Store Management and Operation. 1½ credits. 10:00 to 12:00 daily. Room 18. First term.

Modern methods of successful retail-store management. The subject matter includes organization and functions of the store manager's division, analysis of operating expenses, wage plans, methods of controlling departmental selling costs, receiving procedures, floor supervision, delivery methods, handling adjustments, granting and following up credit and controlling workrooms and supplies. Special emphasis is placed on methods of expense control.

GUIDANCE COURSES

GU. 400.—Organization and Administration of Guidance. 1½ credits. 12:30 to 2:30 daily. Room 12. First term.

History and philosophy of the guidance movement. Guidance as an ethical part of the school functional program. National, state, local and institutional organization for guidance. Practices and techniques employed in active guidance programs. Methods of initiating, organizing, and administering a program of guidance at various levels.

GU. 401.—Local Guidance Program in the School and Community. 1½ credits. 10:00 to 12:00 daily. Room 14. Second term.

The functions and the objectives of a guidance program calculated to serve individual, school and community. Special emphasis on such aspects of the guidance procedure as individual functions, materials, personnel, practices and coordinated school activities.

GU. 402.—Research Practices, Tests and Measurements in Guidance. 1½ credits. 12:30 to 2:30 daily. Room 11. Third term.

Securing, analyzing, and using occupational information. Making industrial, occupational, vocational, and educational surveys for guidance purposes. Evaluation and measuring of tests and devices in guidance for the individual, school, and community.

TRADE AND DISTRIBUTIVE EDUCATION

TDE. 205.—Graphic Analysis. 2 credits. 12:30 to 2:30 daily. Room 15. Second term.

The formulating of abstract and statistical materials into charts and graphs for rapid assimilation. The types of material suited to this analysis, the methods of presenting the material and the preparation of material for display. (A set of drawing instruments will be of value to the student in this work.)

TDE. 206.—Advanced Graphic Analysis. 2 credits. 12:30 to 2:30 daily. Room 15. Second term.

Prerequisite requirements TDE. 205. A continuation of TDE. 205.

TDE. 221.—Organization for Diversified Cooperative Training. 2 credits. 10:00 to 12:00 daily. Room 11. First and Second terms.

Objectives to be attained, organization to attain these objectives, Federal and State requirements, social security, insurance, compensation and labor laws involved will be studied.

TDE. 222.—Occupational Surveys. 2 credits. 2:30 to 4:30, Second term. 10:00 to 12:00 daily, Third term. Room 11.

A study of procedure in making community industrial surveys and of individual industrial plants or business concerns to determine community training needs and acceptable industrial concerns in which to give training.

TDE. 223.—Student Counseling and Selection. 2 credits. 12:30 to 2:30 daily, Second term. 8:00 to 10:00 daily, Third term. Room 11.

The procedure to be followed in securing applicants for training, factors involved in selection of students, occupational counseling, training, assignments, compensation, and work contracts.

TDE. 224.—Industrial Plant Job Analysis. 2 credits. 2:30 to 4:30 daily, First term. 8:00 to 10:00 daily, Third term. Room 16.

The student must make a complete schedule of work processes in an individual plant. Also based upon these processes he must make a schedule of student training, related study, and compensation.

TDE. 225.—Related Study Material. 2 credits. 10:00 to 12:00 daily, First and Third terms. Room 8.

Admittance by two weeks advance request.

The source of securing diversified general and specific related subject matter. Organization of it for teaching purposes, related classroom layout and organization, theory and methods in teaching diversified related subjects.

TDE. 226.—Coordination of Diversified Cooperative Training. 2 credits. 12:30 to 2:30 daily. First and Third terms. Room 7.

Coordination aims, purposes, methods of promotion, community and industrial relationships, advisory committee organization and function, research problems, trainee follow-up and placement.

TDE. 241.—History and Development of Vocational Education in the United States. 2 credits. 8:00 to 10:00 daily. Room 12. First term.

The development of Vocational Education by stages from its beginning to the present time.

TDE. 244.—Conference Methods. 2 credits. 10:00 to 12:00 daily. Room 16. First term.

Methods and devices that can be used successfully in leading and managing foremen conferences and in the selection of problems affecting vocational courses. Designed for Directors, Supervisors, Superintendents and Principals.

TDE. 245.—Vocational Psychology. 2 credits. 12:30 to 2:30 daily. Room 14. First term.

A description of fundamental aspects of judgment, such as intelligence, memory, learning, motivation, imagination, serious thinking; the relation of this knowledge to its physiological basis and an indication of this knowledge in its application to learning processes in vocational and technical training.

TDE. 248.—Principles and Purposes of the Vocational Acts. 2 credits. 10:00 to 12:00 daily. Room 12. Second term.

Congressional and legislative acts providing for vocational education of all kinds; the principal purposes and influences involved in the formulation of these acts; the extent and scope of vocational service provided by means of them.

TDE. 256.—Applied Vocational Psychology. 2 credits. 8:00 to 10:00 daily. Room 14. Second term.

The application of fundamental principles of psychology in the solution of human relation problems of the director, supervisor, or coordinator of vocational education.

TDE. 274.—Curricular Activities Work Shop. 2 credits. 10:00 to 12:00 daily, First and Third terms. 8:00 to 10:00 daily, Second term. Room 9.

Club organization, contest procedures, objectives and philosophy and preparation of materials. ADMITTANCE BY INVITATION ONLY.

TDE. 275.—Advanced Related Study Material. 2 credits. 10:00 to 12:00 daily. Second term. Room 16.

A continuation of TDE. 225. ADMITTANCE BY TWO WEEKS ADVANCE REQUEST.

GRADUATE COURSES

TDE. 500.—Colloquium in Administration and Organization of Distributive Education. 1½ credits. 10:00 to 12:00 daily. Room 14. Third term.

The provisions and interpretations of the George-Deen Act as they pertain to the administration and organization for Distributive Occupations, National, State, County and local programs.

TDE. 507.—Administration of Diversified Cooperative Training. 1½ credits. 8:00 to 10:00 daily. Room 14. First term.

Federal and State requirements, cost control, records, insurance, compensation, labor laws, social security, accrediting agencies, personnel relations and management involved in administration of cooperative training.

TRADE AND INDUSTRIAL EDUCATION

TIE. 202.—Teaching Methods and Devices. 2 credits. 10:00 to 12:00 daily. Room 16. First and Second terms.

The methods used in preparing instructional material for teaching purposes and the use of such methods and aids as demonstrations, illustrations, lectures, conference, instruction sheets, charts, films, slides, and models in demonstration teaching. Designed to meet the needs of Trade Shop Teachers, Part-Time Preparatory Teachers, and Trade Shop Related Teachers.

TIE. 203.—Organization for Individual Instruction and Progression. 2 credits. 12:30 to 2:30 daily. Room 16. First and Second terms.

Means of providing and carrying on individual instruction for students at various attainment levels and progression records and forms for recording individual progress. Designed to meet the needs of Trade Shop Teachers, Trade Shop Related Teachers, and Part-Time Preparatory Teachers.

TIE. 204.—Trade Shop Planning, Organization and Control. 2 credits. 2:30 to 4:30 daily, First and Second terms. 12:30 to 2:30, Third term. Room 15.

Items for consideration in planning shops, management and control with respect to floor space, light, equipment, supplies, inventories, Federal and State regulations, and record keeping devices. Designed to meet the needs of Trade Shop Teachers and Part-Time Preparatory Teachers.

TIE. 214.—Methods and Devices in Teaching Gregg Shorthand. 2 credits. 10:00 to 12:00 daily. Room 3. Second and Third terms.

Methods of presentation to the beginner in shorthand; special teaching procedures designed to speed up responses and bring control in writing under time; methods of teaching disjoined prefixes and suffixes; devices for speed building.

TIE. 215.—Methods and Devices in Teaching Typewriting Instruction. 2 credits. 10:00 to 12:00 daily, First term. 12:30 to 2:30 daily, Third term. Room 3.

Special teaching procedures designed to speed up responses and bring control, with development of appropriate materials for desired results. The application of skill in typewriting as applied to practical business office work. Films made and used by the U. S. Navy in their war training programs will be shown to demonstrate typewriting as done by experts.

TIE. 218.—Thomas Natural Shorthand. 2 credits. 10:00 to 12:00 daily. Room 4. Second and Third terms.

Development of secretarial skill in the Thomas system of shorthand; short cuts to speed.

TIE. 219.—Advanced Teaching Methods in Thomas Shorthand. 2 credits. 8:00 to 10:00 daily. Room 4. Third term.

Emphasis in this course will be placed on methods of developing speed in dictation and transcription. TIE. 218 is not a prerequisite for this course. The evening school teacher of Thomas Shorthand will benefit from taking both 218 and 219.

TIE. 227.—General Continuation School Organization. 2 credits. 2:30 to 4:30 daily. Room 12. Second term.

The development of a knowledge and understanding of the value, possibilities and limitations of continuation schools to the end that the continuation school teacher will understand clearly his place in such a program. A thorough study of methods and procedures in organization, selection of students, Federal, State, and local laws, regulations governing the conduct of continuation schools.

TIE. 237.—Practice Teaching Dictation and Transcription. 2 credits. 12:30 to 2:30 daily. Room 3. Second term.

TIE. 247.—Vocational School Organization. 2 credits. 12:30 to 2:30 daily. Room 12. Second term.

The characteristics and functions of the vocational school; the groups to be served and the provisions, organization and plan necessary to render this service.

TIE. 254.—Tests and Measurements in Vocational Education. 2 credits. 8:00 to 10:00 daily. Room 15. Third term.

The various measurement tests in vocational education with special emphasis on objectives to be attained and methods to be employed in their use.

TIE. 276.—Trade Course Planning. 2 credits. 8:00 to 10:00 daily. Room 15. First, Second and Third terms.

Planning and preparing the trade shop course of study. REQUIRED FOR ALL TRADE SHOP TEACHERS IN FLORIDA, 1945.

TIE. 277.—Work Shop for Related Instruction. 2 credits. 8:00 to 10:00 daily. Room 7. First term.*

For the purpose of reorganizing secondary school subject matter for specific application to technical procedures in occupational training. REQUIRED FOR ALL RELATED INSTRUCTORS IN FLORIDA, 1945.

TIE. 278.—Work Shop for Related Instruction. 2 credits. 8:00 to 10:00 daily. Room 7. Second term.*

TIE. 279.—Work Shop for Related Instruction. 2 credits. 8:00 to 10:00 daily. Room 7. Third term*

TIE. 280.—Methods in Teaching Abstract Subject Matter. 2 credits. 10:00 to 12:00 daily. Room 7. First, Second and Third terms.

Methods in making practical application in correlation with occupational training. Applying the Froebelian steps in teaching to the fundamental psychology of learning through practical experience application. Methods in individual progression. REQUIRED FOR ALL RELATED INSTRUCTORS IN FLORIDA, 1945.

TIE. 281.—Advanced Secretarial Laboratory. 2 credits. 8:00 to 10:00 daily. Room 3. First term.

A continuation of TIE. 216, which is a course in the application of secretarial skills, particularly designed for teachers of secretarial, stenographic, and general office work; coordination of instruction in the basic skills which are required to produce a marketable product; evaluation of balance in the finished product.

TIE. 282.—Advanced Bookkeeping Laboratory. 2 credits. 8:00 to 10:00 daily. Room 4. Second term.

A continuation of TIE. 217, which is a course in the application of bookkeeping skills, particularly designed for teachers of secretarial and general clerical work. Adapting the curriculum to the secretarial and the non-secretarial student; making bookkeeping skills stand the office test.

TIE. 283.—General Continuation Work Shop. 2 credits. 12:30 to 2:30 daily. Room 15. First term.

Organization of elementary and secondary instructional material for adult and veteran consumption.

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*Making possible 6 credits during summer for those who wish to continue work throughout summer in this work shop. (A maximum of 6 credits in any work shop can be counted towards a degree.)

GRADUATE COURSES

***TIE. 501.—Industrial and Economic Development in the South.** 1½ credits.

The historical transition of economic and industrial growth in the South. Contemporary and industrial development.

TIE. 503.—Administration of Vocational Education. 1½ credits. 8:00 to 10:00 daily. Room 15. Second term.

National, State and local administrative organization, and controls for vocational education. Sources and means of procuring and estimating revenue and laws, regulations, principles and plan to be followed in spending, a systematic and detailed study of vocational education administrative personnel duties and responsibilities.

***TIE. 505.—Technical Schools: Their Organization and Control.** 1½ credits.

The purpose and limitations of the various types of technical schools, their curricula, organization, management, control devices, and desirability from the standpoint of scope in satisfying typical community training requirements.

***TIE. 506.—Apprenticeship and Labor Relations.** 1½ credits.

National, state, and labor organization laws regulating and governing apprenticeship in the skilled crafts. Aspects of apprenticeship developments in industrial production and construction. Compulsory public training through craft unions and organization for apprentice training.

TIE. 512.—Colloquium in Administration and Organization of Trade and Industrial Education. 1½ credits. 8:00 to 10:00 daily. Room 18. Third term.

The provisions and interpretations of the Smith-Hughes and George-Deen Acts as they pertain to the administration and organization for Trade and Industrial Education, national, state, county and local programs.

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*Courses to be offered if sufficient number request them three weeks before registration.

CONFERENCES

Conference and Workshop — Commercial Teachers. Starting 9 a.m., July 2 through July 3. Seabreeze High School, Daytona Beach.

Conference and Workshop — Coordinators, Diversified Cooperative Training. Starting 9 a.m., July 2 through July 3, Seabreeze High School, Daytona Beach.

Conference and Workshop — Local Directors, Supervisors, and Principals, Vocational Schools. Starting 2 p.m., July 3 through July 5, Seabreeze High School, Daytona Beach.

Conference and Workshop — Day Trade and Related Teachers. Starting 8 p.m., July 3 through July 5, Seabreeze High School, Daytona Beach.

The most outstanding leadership in the nation will be called to assist in these conferences.

APPLICATION BLANK — 1945 SUMMER SESSION — UNIVERSITY OF FLORIDA

(If you wish to attend the School of Trade and Industrial Education, Daytona Beach, Florida, this form should be filled out completely and mailed to the Registrar, University of Florida, Gainesville, before June 1.

PART I — TO BE FILLED OUT BY ALL APPLICANTS

Name Mr. / Mrs. / Miss ..... *(Last Name) ..... **(First Name) ..... **(Middle Name) ..... Married women please give husband's initials

Home Address ..... St. & No., Box., or Rural Rt. ..... City ..... County ..... State

Give YOUR Occupation last year .....

.....

Are you a regular student at some other college or university who desires to take work at our summer session to transfer to this other institution?..... (yes or no) If your answer is yes, give the name of the other institution.....

I wish to register for the term beginning .....

Check one of the following:

..... I wish to register for courses giving credit for the Bachelor's degree.

..... I wish to register for courses giving graduate credit.
(For those who have the Bachelor's Degree and wish to work for the Master's Degree.)

..... I am not interested in credit toward any degree.

Have you earned any credit through the General Extension Division of the University of Florida?..... (yes or no)

Have you attended the University of Florida before?..... (yes or no) (IF YOUR ANSWER IS NO, DISREGARD THE REMAINDER OF PART I BUT FILL OUT ALL OF PART II ON THE BACK OF THIS PAGE.) Give date of the last session you attended here.....

Have you attended any other college or university since you last attended the University of Florida?..... (yes or no) If your answer is yes, list the institutions you have attended since attending the University of Florida and give dates of attendance.....

.....

STUDENTS WHO PREVIOUSLY HAVE ATTENDED THE UNIVERSITY OF FLORIDA NEED NOT FILL OUT PART II

*If you have registered at the University of Florida under any other name, please list below.
**Married women will please use their own first and middle names.

PART II ON THE BACK OF THIS PAGE MUST BE FILLED OUT BY ALL APPLICANTS WHO HAVE NOT ATTENDED THE UNIVERSITY BEFORE.

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1st

2nd

3rd

PART II — TO BE FILLED OUT ONLY BY APPLICANTS WHO HAVE NOT ATTENDED THE UNIVERSITY BEFORE

Date of birth _____ Place of birth _____ Race _____
Month - Day - Year

Religious preference _____ Are you a member? _____
yes or no

High School attended _____ Did you graduate? _____ Date of graduation _____
yes or no

Have you attended any college or university? _____ If the answer is yes, list the institutions you have attended:
yes or no

Institution	Location	Dates of Attendance

ADMISSIONS

EXPENSES

UNIVERSITY RESIDENCE HALLS

STUDENT ORGANIZATIONS

UNIVERSITY COLLEGE

COLLEGE OF AGRICULTURE

SCHOOL OF ARCHITECTURE AND ALLIED ARTS

COLLEGE OF ARTS AND SCIENCES

COLLEGE OF BUSINESS ADMINISTRATION

COLLEGE OF EDUCATION

COLLEGE OF ENGINEERING

SCHOOL OF FORESTRY

COLLEGE OF LAW

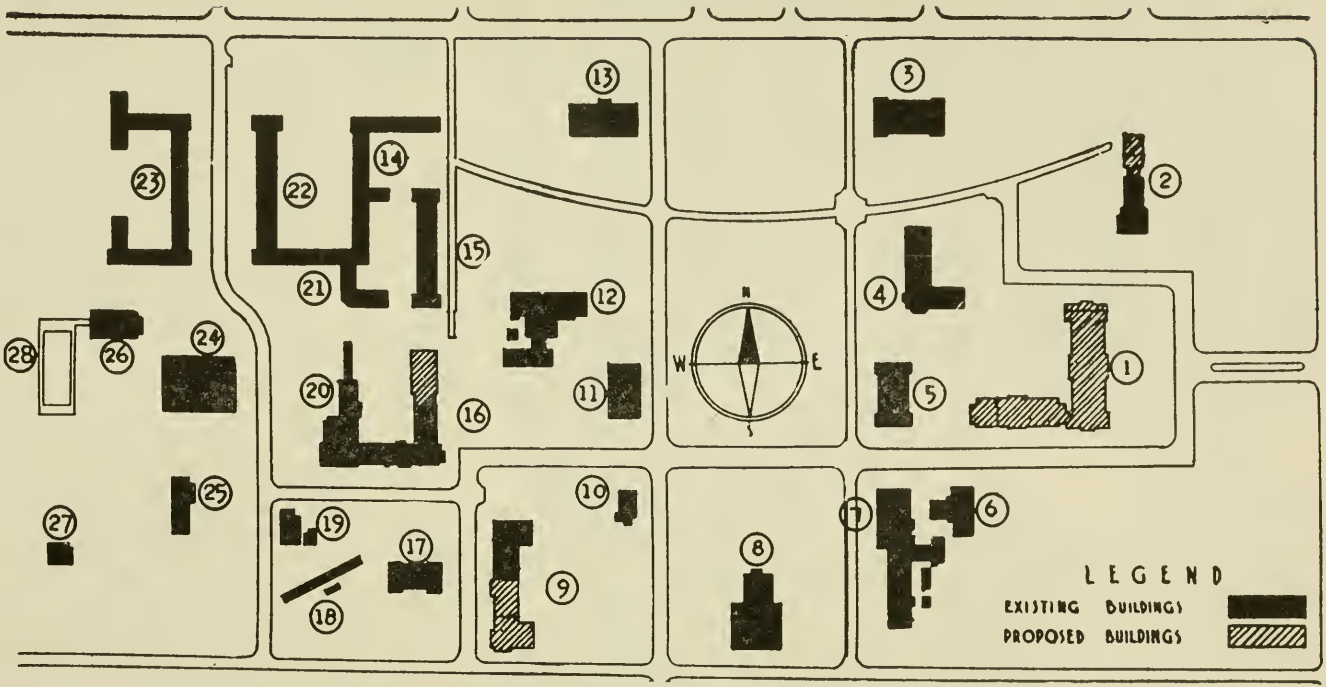
SCHOOL OF PHARMACY

RADIO CURRICULA

GRADUATE SCHOOL

DEPARTMENTS OF INSTRUCTION

CAMPUS—UNIVERSITY OF FLORIDA



No.	BUILDING	No.	BUILDING	No.	BUILDING	No.	BUILDING
1	Administration Building	8	Auditorium	15	Buckman Hall	22	Thomas Hall
2	Law Building	9	Horticultural Building	16	Florida Union	23	Murphree Hall
3	Language Hall	10	Campus Post Office	17	Experiment Station	24	Basketball Court
4	Library	11	Agricultural Building	18	Storage Building	25	Infirmary
5	Peabody Hall	12	Chemistry Building	19	Barracks	26	Gymnasium
6	Engineering Building	13	Science Hall	20	Cafeteria	27	"F" Club
7	Benton Hall and Shops	14	Fletcher Hall	21	Sledd Hall	28	Swimming Pool

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UNIVERSITY CALENDAR

REGULAR SESSION, 1945-46

FIRST SEMESTER

1945

September 13, Thursday.....1945-46 Session officially opens. Preliminary registration for all students who have previously attended the University of Florida.

September 13-15, Thursday-Saturday.....Registration period.

September 17, Monday, 8 A.M.....Classes for 1945-46 Session begin; late registration fee of $5 for all students registering on or after this date.

September 22, Saturday, 12 NOON.....Last day for registration for the first semester, for adding courses, and for changing sections in all courses, except year comprehensive courses.

October 1, Monday, 12 NOON.....Last day for submittting resignation and receiving any refund of fees.

October 20, Saturday, 12 NOON.....Last day for making application for a degree to be conferred at the end of the first semester.

November 29, Thursday.....Thanksgiving Day. Classes suspended.

December 4, Tuesday, 5 P.M.....Progress Reports for University College students are due in the Office of the Registrar.

December 4, Tuesday.....Last day for removing grades of I or X received in the preceding semester of attendance.

December 5, Wednesday, 5 P.M.....Last day for dropping courses without receiving grade of E and being assessed failure fee.

December 20, Thursday, 5 P.M.....Christmas Recess begins.

1946

January 3, Thursday, 8 A.M.....Christmas Recess ends.

January 4, Friday.....Last day for candidates for degrees to complete correspondence courses.

January 7, Monday, 5 P.M.....Last day for graduate students graduating at the end of the first semester to submit theses to the Dean.

January 14, Monday.....Final Examinations begin.

January 14, Monday.....Second semester registration begins for students who have previously registered in the University. Late registration fee of $5 for not registering according to the announcements in the Orange and Blue Bulletin.

January 24, Thursday, 4 P.M.....First semester ends; all grades are due in the Office of the Registrar.

January 25, Friday.....Faculty meetings to pass upon candidates for degrees.

January 26, Saturday, 10 A.M.....Conferring of degrees.

SECOND SEMESTER

January 26, Saturday, 8 A.M. to 5 P.M.....Second semester registration for students not in attendance during first semester.
Placement Tests, Room 205 Peabody Hall.

January 28, Monday, 8 A.M.....Classes begin. Late registration fee, $5.

February 2, Saturday, 12 NOON	Last day for registration for second semester, for adding courses, and for changing sections.
February 16, Saturday, 12 NOON	Last day for making application for a degree to be conferred at end of second semester. Last day for submitting resignation and receiving any refund of fees.
March 25, Monday, 5 P.M.	Progress Reports for University College students due in the Office of the Registrar.
March 27, Wednesday	Last day for removing grades of I or X received in preceding semester of attendance.
April 17, Wednesday, 5 P.M.	Last day for dropping courses without receiving grade of E and being assessed failure fee.
May 7, Tuesday	Last day for candidates for degrees to complete correspondence courses.
May 8, Wednesday, 5 P.M.	Last day for graduate students graduating at the end of the semester to submit theses to the Dean.
May 13, Monday, 8:30 A.M.	Final Examinations begin.
May 23, Thursday, 4 P.M.	All grades for candidates for degrees are due in the Office of the Registrar.
May 24, Friday	Faculty meetings to pass upon candidates for degrees.
May 25, Saturday, 5 P.M.	Final examinations end.
May 26, Sunday	Baccalaureate Address.
May 27, Monday	Conferring of degrees.
May 27, Monday, 12 NOON	Second Semester ends; all grades are due in the Office of the Registrar.

STATE BOARD OF EDUCATION

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J. TOM WATSON.....Attorney General
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UNIVERSITY COUNCIL

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President of the University

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*HARLEY WILLARD CHANDLER, M.S.....Dean of the University

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H. HAROLD HUME, D.Sc.....Provost for Agriculture and Dean of the College of Agriculture

RICHARD SADLER JOHNSON, B.S.P.....Registrar

WINSTON WOODARD LITTLE, M.A.....Dean of the University College

HAROLD MOWRY, M.S.A.....Director of the Agricultural Experiment Station

HAROLD STEPHENSON NEWINS, M.F.....Director of the School of Forestry

JAMES WILLIAM NORMAN, Ph.D.....Dean of the Summer Session

BERT CLAIR RILEY, B.A., B.S.A.....Dean of the General Extension Division

GLENN BALLARD SIMMONS, Ph.D.....Acting Dean of the College of Education

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HARRY RAYMOND TRUSLER, M.A., LL.B.....Dean of the College of Law

JOSEPH WEIL, M.S.....Dean of the College of Engineering

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* On leave of absence

OTHER ADMINISTRATIVE OFFICERS

Nelle Barmore, B.A. ..... Acting Librarian
Percy M. Beard, M.S. ..... Acting Director of Athletics
*Lewis F. Blalock, M.A. ..... Director of Admissions
Lawton Walter Blanton, M.A.E. ..... Acting University Examiner
Richard DeWitt Brown ..... Director of Music
*John David Butler, LL.D. ..... Director of Residence
Klein Harrison Graham, LL.D. ..... Business Manager
Lester Leonard Hale, Ph.D. ..... Acting Director of Florida Union
Ralph L. Joyner, B.S.E.E., Lt. Col., FA ..... Professor of Military Science and Tactics
Thomas J. Lieb, M.A. ..... Head Coach
*John Vredenburgh McQuitty, Ph.D. ..... University Examiner
John Fletcher Martin, M.A. ..... Director of the Institute of Inter-American Affairs
*Donald Ray Matthews ..... Director of Florida Union
Carl Braden Opp, B.A. ..... Acting Director of Residence
Garland Powell ..... Director of Radio Station WRUF
Allan O. Skaggs, B.A.J. ..... Acting Director of Publicity
George Clarence Tillman, M.D., F.A.C.S. ..... University Physician
Thompson Van Hyning ..... Director Florida State Museum
William Harold Wilson, Ph.D. ..... Associate Dean of the College of Arts and Sciences
*Frank S. Wright, B.S.J. ..... Director of Publicity

*On leave of absence.

THE UNIVERSITY AND THE WAR

THE ACCELERATED CIVILIAN PROGRAM.—Despite decreased enrollments and the fact that a large portion of the faculty were on leave of absence, either in military service or government war agencies, the University has considered it essential to maintain, as nearly as possible, its complete civilian program. The most frequent need of the civilian student is an intensified program making possible the completion of college work in a period much reduced from normal. Both younger students finishing high school and desiring to complete some college work before entering the services and returning veterans anxious to complete formal education as rapidly as possible make extensive use of an elaboration of the Summer Session offerings which makes possible the completion of nearly three semester's work during one calendar year. A second provision for acceleration is available in connection with the *Comprehensive Courses*, which constitute the major portion of the lower division program. It is possible for the well-equipped student studying on his own initiative to prepare for examinations in these courses and complete the core of the freshman and sophomore program considerably in advance of the usual time.

PROGRAMS AND SPECIAL FACILITIES FOR VETERANS.—At the time of the preparation of this catalog, many of the University's policies with respect to veterans are in the process of formulation. The University Senate has approved a general policy which does not attempt grouping of veterans in a separate category but rather provides that considerable latitude be allowed within the framework of sound educational procedures for assisting the veteran in his readjusting to civilian life. For the most part, the standard curricula will be of interest to the veteran planning to attend college. Procedures for evaluating his educational experiences while in the services will be developed and a detailed description of these will appear in a separate bulletin. Opportunities will be available for acceleration as described above. Some special programs are being arranged primarily for veterans. These include sub-collegiate courses preparatory to college entrance; non-degree programs in agriculture designed to fit the veteran for a specific employment objective in such fiields as citrus culture, poultry raising, animal husbandry, dairying, forestry and general farming; curricula in technical fields designed to prepare technicians in various industries as air conditioning, chemical plant operation, etc. As the plans listed above are developed, special bulltins will be prepared describing their scope and giving other pertinent information.

WAR TIME SERVICES OF THE UNIVERSITY.—Extensive use of University facilities has been made in the training of Army personnel through the Army Specialized Training Program and the Army Air Forces College Training Program. About 5,000 soldiers were given training under these programs between February 1, 1943 and December 1, 1944.

As early as 1939 the University gave pilot training under the Civilian Pilot Training Program. During the spring and summer of 1942, the Chemical Warfare Service operated a Civilian Protection School for the Southeastern states on the University campus and in September, 1942, an Officer Candidate School under the supervision of the Adjutant General's Department was established. Nearly 2,000 officers were trained for administrative posts in June, 1943.

The University through its College of Engineering and in cooperation with the United States Office of Education administered the Engineering, Science, and Management War Training courses in Florida. The ESMWT program provided short courses of college grade "designed to meet the shortage of engineers, chemists, physicists and production supervisors in fields essential to the war effort."

Men and women employable in a war activity, immediately available for employment on completion of this training, and capable of performing academic work of college grade

met the general requirements for admission. High school graduation, or its equivalent, was the minimum prerequisite. Regularly enrolled college students were not eligible for ESMWT courses unless they expected to secure employment immediately after receiving the training.

Most of the courses in Florida were given at night and consisted of six to nine class and laboratory hours per week for a period of about fifteen weeks. These courses were designed primarily to prepare persons then employed for positions of greater responsibility. A few courses were offered in the daytime on a full-time basis of from thirty to forty-five class and laboratory hours a week for a period of several weeks for pre-employment training for war industries or government service. College credit was not given for ESMWT courses, but each trainee received a certificate on satisfactory completion of a course.

The facilities of the College of Engineering and the Engineering and Industrial Experiment Station are devoted to two types of research, the first of which pertains to work actually being done for the armed services is confidential in nature and cannot be discussed in detail until after the war. The second is conducted for the benefit of Florida's industries and is directed toward greater utilization of the state's products not only for the war effort but also the economic development in the post war era.

INFORMATION FOR VETERANS

As demobilization accelerates, more and more ex-service men will enter college, some to begin college work, some to resume interrupted programs and others to seek special types of training for specific jobs. In so far as its facilities permit, the University of Florida is preparing to serve all these groups. Special publications will be available describing offerings other than the regular degree curricula which are outlined in this catalog.

A veteran with an involved problem concerning admission, credits from other institutions, college program desired, or anything else, should come to the campus for necessary conferences with University officials before registration day. Since men are released from the service every day, many will have time to adequately plan and avoid the rush of opening day. During the semester, officials have time to check rather thoroughly with each individual.

There has been appointed a member of the University staff as Veterans' Counselor, Assistant Dean J. Ed Price, whom the veteran is invited to contact if he has any problem to discuss or questions to ask. Dean Price is located in Room 3, Language Hall.

Our experience to date has indicated that most veterans planning to enter the University of Florida, regardless of the type of program they desire, have several common questions. This section is devoted to answers to questions most frequently asked by veterans.

How does the veteran gain admission to the University?

> See the section on ADMISSIONS. Request the proper application as described there. Application should be made before coming to Gainesville.

Can a veteran who has not graduated from high school enter the University?

> Such veterans will be considered for admission. Qualification for admission to degree curricula is possible if the veteran makes a satisfactory score on a set of tests designed to measure general educational levels. These tests are prepared by the United States Armed Forces Institute, especially for service personnel. The veteran seeking to gain admission through this method should correspond with the Registrar to arrange for taking these tests. A veteran failing to qualify for regular college entrance on these tests may enter non-degree curricula or take an accelerated preparatory program that may qualify him for admission at a later date.

Will college credit be given for military service and training received in the service?

As this catalog goes to press, a University committee is working on the problems involved in making adjustments for educational experiences in the armed services. A special bulletin will be prepared giving the details as soon as the University policies are formulated. Every effort will be made to recognize achievement in line with the veteran's educational objective and in keeping with sound educational procedures.

Does the University provide housing facilities for veterans with families?

Efforts are being made to arrange for University operated or supervised living quarters for veterans with families. At the present time some accommodations can be made available in the University dormitories but these would not include housekeeping facilities. It is hoped that in the near future some family units can be obtained by the University. The Office of the Dean of Students will maintain a list of apartments and small houses available adjacent to the campus. A veteran planning to bring his family is urged to correspond with the Dean of Students well in advance of enrollment for assistance in this connection.

Who is eligible for benefits under the GI Bill of Rights (Public Law 346)?

Any veteran with a discharge other than dishonorable who has 90 days or more of active military service (exclusive of time spent in the ASTP, the Navy V-12, or as a cadet at one of the service academies) and who was less than 25 years of age at the time of entering the service (September, 1940, or after) is eligible. If the veteran is over 25 years of age at the time of entering the service, he must furnish proof that his education was interrupted to become eligible under the GI Bill.

How does a veteran apply for benefits under the GI Bill?

Application must be made on a special form. This form can be obtained from the University, any Veterans Administration office or from such service groups as the Red Cross, veterans' organizations, etc. The veteran should procure the form, execute it before a notary public and send it to the Registrar of the University, accompanied by a certified copy of his discharge or certificate of service. (The original discharge may be sent if it is difficult to have a copy made. The University will make a certified copy and forward it with the application. If this method is used, the original document should be sent by registered mail.)

What benefits are available under the GI Bill?

A qualified veteran receives tuition, fees, books and training materials up to $500 for an academic year of nine calendar months (these expenses at the University of Florida are less than $500 for the academic year) and a subsistence allotment in the amount of $50 per month if single, $75 per month with dependents.

Can any portion of the $500 per year allowed by the Government be used to pay for board and room?

No. $500 is the maximum paid to the institution by the Government for tuition, fees, books, etc., not an allotment to the veteran for those expenses. Personal expenses of the veteran including board and room are his own responsibility. His subsistence allotment should provide for these expenses in most cases.

What fields of study are open to veterans under the GI Bill?

Any program or curriculum for which the veteran is qualified (see ADMISSIONS)

that is available at the University.

How long can a veteran attend the University under the GI Bill?

The qualified veteran is entitled to one year of education or training. Satisfactory completion of that year entitles him to an additional period not to exceed the time spent in active service after September 16, 1940. The total period may in no event exceed four years (the Veterans Administration regards the term "year" as used above as a calendar year of twelve months).

Who is eligible for benefits under the Vocational Rehabilitation Law (Public Law 16)?

An honorably discharged veteran with a service connected, pensionable disability that produced a vocational handicap is eligible. The provisions of this law are somewhat complex and eligibility can be determined only by the Veterans Administration. A veteran who feels that he might qualify is advised to consult officials of the Veterans Administration.

What fields of study are open to veterans under Public Law 16?

A Veterans Administration approved program that trains one for the vocation selected by the veteran and the officials of the Veterans Administration. The training must be directly preparatory for a specified employment objective.

What benefits are available under Public Law 16?

The Government pays costs of training (fees, tuition, books, etc.) directly to the institution and allowances to the veteran for living and personal expenses that vary with the type of disability, dependants, etc.

ADMISSIONS

GENERAL STATEMENT

Students who are planning to enter the University of Florida for the first time will be considered for admission as follows:

1. If the student is entering the University from high school and has not attended college, he will be considered for admission to the University College.
2. If the student is transferring to the University from another college or university and is presenting less than two years of acceptable college credit for advanced standing, he will be considered for admission to the University College.
3. If the student is transferring to the University from another college or university and is presenting two years or more of acceptable college credit as advanced standing toward a baccalaureate degree, he will be considered for admission to the Upper Division school or college of his choice provided his record indicates the completion of college work in the Social Sciences, the Physical Sciences, English, the Humanities, and the Biological Sciences.
4. If the student wishes to pursue graduate studies, and has been graduated from a standard college or university, he will be considered for admission to the Graduate School.

Prospective students are referred to the sections below for more detailed information on the policies governing and the procedures involved in securing admission to the various divisions of the University.

The prospective student should determine from the preceding paragraphs the category in which he may apply for admission to the University. He should then write to the Office of the Registrar giving his full name and home address and stating the unit for which he wishes to be considered for admission. Appropriate application forms and instructions will then be mailed to him.

ADMISSION TO THE UNIVERSITY COLLEGE

Florida Students.—The following items are considered in admitting students who have not previously attended college.

(1) Graduation from high school.*

(2) Achievement in high school.

(3) Personal qualities.

(4) Recommendation of high school principal.

(5) Rank on Placement Tests.

Graduation from high school is required. No specific high school units are required; however, all applicants must pass the Placement Tests before being admitted to the University

*The Board of University Examiners may in rare cases, when the principal of the high school the student has attended recommends such action, permit an exceptional student, before graduation, to take the Placement Tests; if the student passes these tests satisfactorily, he may be admitted to the University College. Mature students, lacking a formal high school education, but possessing because of some other training the necessary admission requirements, may petition the Board of University Examiners for permission to take the Placement Tests and the College Aptitude Test; upon satisfactorily passing the tests, such students will be admitted to the University College.

College. These tests consist of a general psychological test, and achievement tests in the fields of English, mathematics, social studies, and natural sciences. Attainments in these fields are possible without specific high school courses and are not guaranteed by the acquiring of certain high school units.

Certain curricula of the Upper Division require a working knowledge of a foreign language. Students contemplating entering such curricula could with profit begin this study in high school.

Students expecting to study engineering need a thorough training in mathematics. An effort should be made by such students to obtain the broadest possible mathematical training in the high school.

Students who expect to study architecture or building construction should obtain a thorough foundation in mathematics and the physical sciences.

Non-Florida Students.—In addition to the requirements for Florida students, non-Florida students are required to file preliminary credentials satisfactory to the Board of University Examiners. The Board then will determine the eligibility of such students to take the Placement Tests. However, permission to come to Gainesville to take these tests does not guarantee admission to the University College. Students come to Gainesville at the risk of being refused admission if the results of the Placement Tests are not satisfactory.

Transfer Students.—The Board of University Examiners will determine the advanced standing of students entering the University from other colleges. In general, the policies of this Board will be as follows:

1. All students must present training equivalent to the work of the University College, and in some cases will be required to pass the prescribed comprehensive examinations.

2. Students with poor records from other institutions will not be admitted to the University of Florida. A student whose average is below "C" should not apply for admission to the University, and a student whose average is only "C" is not guaranteed admission.

3. The Board of University Examiners, in the case of transfer students with high or superior records, may vary the requirements for admission to the colleges and professional schools of the Upper Division to the best interest of the student.

ADMISSION TO THE UPPER DIVISION

From the University College.—After the student has completed the work of the University College and received a certificate of graduation, he may enter one of the colleges or professional schools of the Upper Division by meeting the specific admission requirements of that college or school. A student remaining in the University College to complete one or more specific requirements, may, with the approval of the Dean of the College he expects to enter in the Upper Division, take additional work which may apply on his record in the Upper Division.

The Board of University Examiners administers the admission requirements of the Upper Division. Besides the certificate of graduation from the University College, the student must be certified by the Board as qualified to pursue the work of the college or school he wishes to enter.

In addition to the general requirements stated above, the various colleges and schools of the Upper Division have specific requirements for entrance. These requirements are

listed under the curricula of the several colleges and schools. Students in the University College may prepare to meet these requirements by taking as electives the courses indicated under the various curricula presented.

Transfer Students.—All students admitted to the colleges and professional schools of the Upper Division will be required to meet the requirements for admission to those colleges.

The manner in which students transferring from other colleges to the University may meet the requirements for admission to the colleges of the Upper Division will be determined by the Board of University Examiners. In general, the policy of the Board of University Examiners will be as follows:

1. The Board of University Examiners will always bear in mind the aims of the curriculum of the University College. All students must present training equivalent to the work of the University College and may be required to pass prescribed comprehensive examinations.
2. Students with average records from other institutions will be required to meet in toto the requirements for admission to the Upper Division.
3. The Board of University Examiners, in the case of transfer students with high or superior records, may vary the requirements for admission to the colleges and professional schools of the Upper Division, to the best interest of the student.

Students who, for any reason, are not allowed to return to the institution they last attended, or have not made a satisfactory record in the work carried at other institutions, will be denied admission to the University of Florida. Students with an average below C need not apply for admission. Students with an average of C or higher are not guaranteed admission.

Special Students.—Only by the approval of the Board of University Examiners may special students be admitted to the various schools and colleges of the Upper Division. Special students are never admitted to the College of Law. Application for admission of these students must include:

1. The filing of satisfactory preliminary credentials.
2. A statement as to the type of studies to be pursued.
3. Reason for desiring to take special courses.
4. Satisfactory evidence of ability to pursue these studies.

ADMISSION TO THE GRADUATE SCHOOL

To be admitted to the Graduate School an applicant must be a graduate of a standard college or university and have a foundation in the major subject sufficient in quantity and quality to be satisfactory to the department in which the student proposes to major. Immediately preceding the description of the graduate courses offered by any department will be found a brief statement of the prerequisites for graduate study. The course offerings are arranged alphabetically by department name in the latter portion of the *Catalog*.

If the student is a graduate of a college or university which does not meet standard requirements or if the quantity and quality of the foundation in his proposed major field is not completely satisfactory, he may nevertheless be permitted to register provisionally, and demonstrate by a qualifying examination and a semester's work, his preparation for and his ability to do graduate work. Such students often will be required to spend longer than the prescribed time in completing the requirements for the degree. It is permissible for well-qualified students to take courses in the Graduate School without becoming candidates for an advanced degree.

ADMISSION OF WOMEN

The University of Florida is not a coeducational institution. The State institution of higher learning for women is the Florida State College for Women located at Tallahassee.

Women students are admitted to the University of Florida in the regular session under the laws of the State provided they meet one set of the following conditions:

1. Women who are at least twenty-one years of age and who have received credit from a reputable educational institution in at least 64 semester hours of academic college work shall be eligible to enroll as students in the University of Florida in such subjects and courses as they are unable to obtain in any other institution under the supervision of the Board of Control, provided they are able in every way, regardless of sex, to meet the admission and eligibility requirements of said University.
2. Women who present at least 32 semester hours of acceptable college credits may be permitted to enroll in the University of Florida as sophomores to study Pharmacy. To meet this requirement credits in English, botany, biology, mathematics, physical sciences, and psychology are preferable. Such students must be able in every way, regardless of sex, to meet the admission and eligibility requirements of the University. Women students in the University College, under this regulation, are limited in their selection of courses to those which are prerequisite for admission to the School of Pharmacy.
3. The wife of a veteran of World War II attending the University of Florida may be admitted, provided she can meet the regular entrance requirements of the University and provided, further, that her attendance at the University coincides with that of her husband.

GENERAL INFORMATION

EXPENSES

REGISTRATION FEES

	1st Sem.	2nd Sem.
Undergraduate Students, except in College of Law	$ 50.00	$ 50.00
Undergraduate Students, in College of Law	60.00	60.00
Graduate School Students	35.00	35.00
All Non-Florida Students Pay Additional	100.00	100.00

DESCRIPTION OF REGISTRATION FEES

Registration Fees listed in the above table include the following:

Contingent Fee.—A fee of $27.50 per semester is charged every student.

Special Fee.—A fee of $2.50 per semester is required of each student for the construction and rehabilitation of buildings.

Infirmary Fee.—All students are charged an Infirmary Fee of $7.50 per semester which secures for the student, in case of illness, the privilege of a bed in the Infirmary and the services of the University Physician and the professionally trained nurses, except in cases involving a major operation.

Student Activity Fee.—A fee of $24.00 is assessed to maintain and foster athletic sports, student publications, and other student activities. $12.00 of this fee is paid the first semester, and $12.00 is paid the second. Student fees are passed by a vote of the student body and approved by the Board of Control before they are adopted.

Swimming Pool Fee.—A fee of 50 cents per semester is charged all students for use of the lockers and supplies at the swimming pool.

SPECIAL FEES

Fees which apply in special cases only are listed below:

Breakage Fee.—Any student registering for a course requiring locker and laboratory apparatus in one or more of the following departments is required to buy a breakage book: Chemistry, Pharmacy, Biology, and Soils. This book costs $5.00. A refund will be allowed on any unused portion at the end of the year, when the student has checked in his apparatus to the satisfaction of the departments concerned.

Room Reservation Fee.—Students wishing to reserve rooms in the Residence Halls must pay a room reservation fee of $10 at the time such reservation is made.

Special Examination Fee.—A fee of $5 is charged for each examination taken at a time other than that regularly scheduled.

Application Fee for Comprehensive Examination.—A non-refundable fee of $1, payable on the day of application, is charged for each application for a comprehensive examination. Applications are necessary only in case the student is not currently registered in the course concerned.

Diploma Fee.—This fee of $5 must be paid at the time the student makes formal application for a degree. This must be done on or before the last day for making such application

as stated in the calendar for the semester at the close of which the student expects to receive the degree. If, for any reason, the student does not receive the degree at this time, the fee for subsequent applications for the degree will be $2.

Special Infirmary Charges.—A student requiring an emergency operation, which is not covered by the fee assessed, may employ the services of any accredited physician whom he may select, and utilize the facilities of the Infirmary for the operation. To secure this medical service the student must report to the physician in charge of the Infirmary. When operating room is used a fee of $5 is charged. Board in the Infirmary is charged at the rate of $1 a day.

Library Fines.—A fine of 2 cents a dav is charged for each book in general circulation which is not returned within the limit of two weeks. "Reserve" books may be checked out overnight, and if they are not returned on time the fine is 25 cents for the first hour and 5 cents an hour or fraction of an hour thereafter until they are returned. No student may check out a book if he owes the Library more than 50 cents in fines.

FEES FOR PART-TIME STUDENTS

Students who carry nine hours or less will be charged a contingent fee of $25.00 a semester, the infirmary fee of $7.50 a semester and special fee of $2.50 a semester. Such students must pay any tuition which their classification specifies. Such students are not entitled to any of the privileges attached to any other University fee.

PAYMENT OF FEES

Fees are payable as a part of the registration procedure except for the Non-Florida Fee for the first semester of attendance which must be sent to the Office of the Registrar before the applicant may be issued an Admission Certificate; the Room Reservation Fee which must accompany the Application for Room Reservation and be sent to the Director of Residence; and Special Fees which are payable at the time that the student expects to receive the service for which the fee is assessed. Failure to pay fees when due makes registration incomplete and will result in assessment of the $5 late registration fee.

If any remittance is made by mail it must be accompanied by the full name of the student concerned and a notation concerning the fee or fees being paid. All remittances must be made payable to the University of Florida and sent to the Office of the Business Manager except as noted above. The Office of the Business Manager will issue receipts for all funds received which will indicate the purpose of payment. Students are cautioned to preserve these receipts and have them available for examination by any University official concerned.

REFUND OF FEES

Students resigning before the dates specified in the University Calendar are entitled to a refund of all fees except $5 of the contingent fee. This $5 is the cost of service in registering the student and is never refunded.

OTHER EXPENSES

Room Rent.—Rent for rooms in the Residence Halls varies from $32.00 to $45.00 per student per semester. Remittances for Room Rent should be made in accordance with the directions issued by the Director of Residence. (See page 14.) If the student does not reside in one of the units of the Residence Hall System the arrangements concerning rates and method of payment are the responsibility of the individuals concerned.

Meals.—Cost of meals in the University Cafeteria varies with the individual. Books of coupons having cash value may be purchased from the Office of the Business Manager (see page 19), or meals may be paid for in cash.

The P. K. Yonge Cafeteria, located in the Yonge Building serves noon day meals five days each week, and offers to University students high quality food at reasonable prices.

The University Soda Fountain, located in the basement of Florida Union, offers strictly fountain service, all kinds of sandwiches, candies, tobaccos, etc.

Books and Supplies.—Cost of these items varies with the program of the student. It is estimated that from $30.00 to $50.00 per year will cover this expense for most students.

SUMMARY OF EXPENSES FOR THE YEAR

	Minimum	Maximum
General Fees and Course Expenses	$100.00*	$100.00*
Books and Training Supplies for the Year	30.00	50.00
Laundry and Cleaning	25.00	35.00
Room and Board	360.00	450.00
Estimated Total Expenses	$515.00	$635.00

*Non-Florida students are charged $200 tuition per year in addition.

TUITION

No tuition, except in the College of Law, is charged Florida students.

Non-Florida students, including those pursuing graduate work, pay tuition of $100.00 per semester in addition to the fees charged Florida students.

Classification of Students.—For the purpose of assessing tuition, students are classified as Florida and non-Florida students.

A Florida student, if under twenty-one years of age, is one: (1) whose parents have been residents of Florida for at least twelve consecutive months next preceding his registration; or (2) whose parents were residents of Florida at the time of their death, and who has not acquired residence in another state; or (3) whose parents were not residents of Florida at the time of their death but whose successor natural guardian has been a resident of Florida for at least twelve consecutive months next preceding the student's registration.

A Florida student, if over twenty-one years of age, is one: (1) whose parents are residents of Florida (or were at the time of their death) and who has not acquired residence in another state; or (2) who, while an adult, has been a resident of Florida for at least twelve consecutive months next preceding his registration, provided such residence has not been acquired while attending any school or college in Florida; or (3) who is the wife of a man who has been a resident of Florida for at least twelve consecutive months next preceding her registration; or (4) who is an alien who has taken out his first citizenship papers and who has been a resident of Florida for at least twelve consecutive months next preceding his registration.

All students not able to qualify as Florida students are classified as non-Florida students.

The status of the classification of a student is determined at the time of his first registration in the University, and may not thereafter be changed by him unless, in the case of a minor, his parents move to and become legal residents of this State, by maintaining such residence for twelve consecutive months. If the status of a student changes from a non-Florida student to a Florida student, his classification may be changed at the next registration thereafter.

A fee of $10 will be charged all students registering incorrectly. In the case of non-Florida students, this fee will be assessed in addition to the tuition. In the case of Florida students who give an out of state address at the time of registration or any other time,

this fee will be charged unless the student files a written explanation acceptable to the Registrar stating why the out of state address was given and giving proof that his residence is Florida.

UNIVERSITY CAFETERIA

The Cafeteria, located adjacent to the Residence Halls, is under the direction of a graduate dietitian, and offers to University students high quality food at reasonable prices. The meals are carefully planned, offering a pleasing variety of foods attractively served.

All service is cafeteria style, affording individual selections. The policy is to furnish well prepared food at actual cost. Coupon books containing tickets with a monetary value of $5.00 or $15.00 are available for the convenience of students.

UNIVERSITY RESIDENCE HALLS

The purpose of the Residence Halls is to provide comfortable student living quarters at economical rates. The Halls are self-supporting: the costs of their construction, maintenance, repair, and management, including the salaries of all persons directly concerned with their operation, are paid from monies received as rent. There is no other source of income. For this reason it is necessary that rent accounts be paid promptly and that residents cooperate to the fullest extent in caring for rooms, equipment, and grounds.

The Office of the Director of Residence was created in 1939 and began operations in September of that year. Its purposes are: (1) to supervise the financial and physical operation of the Halls; (2) to assist in attaining and maintaining high standards of student morale and self-discipline; and (3) to assist in improving conditions of student residence within the facilities available. In carrying out these aims, restrictions are held to the minimum required by the necessities of group living. All student privileges are based upon acceptance of the responsibility for self-discipline; and every effort is made, within the limitations imposed by staff size and time, to aid residents in their adjustment to the Residence Halls and the University. No resident should hesitate to take up any matter with the Director's Office at any time.

A Committee on Residence, composed of the Dean of Students, the Business Manager, and the Registrar, is responsible for supervision of general policy regarding the Residence Halls.

A Student Monitor (or Preceptress) is in charge of each section of the Residence Halls and is responsible, through the Director of Residence, to the Committee on Residence for the general management of each section and the conduct of its residents. He has the authority to invoke or recommend disciplinary measures for conduct detrimental to the section or the Residence Halls.

FACILITIES

The University of Florida Residence Halls consist of five dormitories: Buckman, Thomas, Sledd, Fletcher, and Murphree Halls. Each is divided into sections which accommodate an average of thirty-two residents each. A bathroom with shower, lavatories, and toilets is located on each floor of each section.

All five Halls have brick exteriors with tile roofs. Sledd, Fletcher, and Murphree Halls and the remodeled sections of Buckman and Thomas Halls have interior construction of steel and tile. The rooms in these sections have composition tile floors, rough plaster walls with light finish, built-in dressers, closets, lavatories, and medicine cabinets. Many rooms on the first and second floors have bay windows, and all rooms have adequate light

and air. Steam heat is furnished during the winter months, and there is an ample supply of hot water throughout the day.

The Halls are conveniently located in relation to the University Cafeteria, the University Post Office, the gymnasia, swimming pool, playing fields, Florida Union, Infirmary, and classrooms. Two large and comfortably furnished lounges are generally available to residents for social activities and the entertainment of friends and visitors. Fletcher Lounge is located on the first floor of Fletcher F, and Murphree Lounge is located on the first floor of Murphree J.

Room furnishings consist of single beds, innerspring mattresses, desks, chairs, wastebaskets, and roller shades. Additional equipment, such as upholstered easy chairs, extra tables, and similar items, is gradually being placed in the rooms; charges for such items are included in the incidental costs listed below. Some of the smaller double rooms in Fletcher Hall, as well as several two-room suites for three in other Halls, are furnished with commodious double-deck bunks instead of single beds.

The following types of rooms are available: *Single (S.)*—one room for one person; *Double (D.)*—one room for two persons; *Triple (T.)*—one room for three persons; *Two Room Suite (2RS.)*—bedroom and study room for two persons; and *Two-Room Suite for Three (2RS-3.)*—bedroom and study room for three persons.

RATES AND CHARGES

The schedule given below indicates the rate per person for each semester of the Regular Session.

Halls:	BUCKMAN		THOMAS		SLEDD		FLETCHER		MURPHREE	
Type:	Rms.	Rate	Rms.	Rate	Rms.	Rate	Rms.	Rate	Rms.	Rate
Single	13	$38.00	39	$38.00	6	$42.00	7	$45.00	—	——
	—	——	—	——	3	$40.00*	5	$40.00*	—	——
Double	23	$32.00	38	$32.00	—	——	14	$40.00	—	——
	—	——	12	$30.00**	—	——	6	$37.50*	15	$37.50*
Triple	2	$24.50	3	$30.00	—	——	—	——	—	——
	—	——	2	$24.50	—	——	—	——	—	——
2-Room Suite for 2	—	——	—	——	56	$40.00	63	$41.00	133	$41.00
	—	——	—	——	21	$34.00*	22	$40.00*	30	$40.00*
2-Room Suite for 3	22	$24.50	10	$24.50	8	$36.00	4	$37.00	8	$37.00
	—	——	—	——	—	——	—	——	2	$36.00*

* Fourth floor rooms.
** Without lavatory in room.

Room rent and other charges for the term or semester are due and payable in advance at the beginning of the period. In cases where necessity is shown, arrangements may be made for installment payments of room rent, subject to the approval of the Committee on Residence. Such arrangements bear a carrying charge. Failure to pay rent when due or as arranged may result in cancellation of University registration.

Extra electrical appliances (excepting one study lamp allowed each resident and razors and clocks) are charged for each item per term or semester. The wiring of all electrical equipment is subject to inspection and must meet electrician's standards. The use of hot-plates and similar electric heating or cooking devices and radio sending sets is prohibited.

Extra equipment, such as easy chairs, extra chairs, extra tables, bookcases and similar items, in the rooms is charged for per item by the term or semester.

Pillows, lamps, typing tables, blankets, linens, and other types of extra equipment are available for rent in limited quantities. Residents are responsible for exchange or return of such items. Except for emergencies, it is recommended that residents furnish their own linens, pillows, and blankets.

MAKING RESERVATIONS

Anyone desiring to make room reservations should address the Office of the Director of Residence for application forms and information as to Halls available for the period he plans to attend.

A room reservation fee of $10.00 per person for the Regular Session must be posted before an assignment can be made. This fee is not a payment on rent but is a deposit which is refundable, less any outstanding charges, after the student has completed his period of residence and vacated his room, and the premises have been checked as to condition. Checks or money orders for this fee should be made payable to the University of Florida.

Each applicant will be given advance notification, if possible, of his exact room assignment, the earliest date he may occupy his room, the latest date for cancellation of reservation without forfeiture of the reservation fee, and other essential information. Assignments are made in order according to the date on which the reservation fee is posted.

Room assignments for men residents are made by a schedule under which certain rooms are assigned to freshmen only, and others to upperclassmen only. The purpose of this schedule is to distribute the two levels of students evenly throughout all sections.

Residents are responsible for their rooms for the entire Regular Session unless otherwise arranged. Residents may not change rooms or move to quarters off-campus unless such changes are approved, in advance, by the Director of Residence or the Committee on Residence. Residents resigning from school because of induction into the armed forces or because of illness will be granted pro-rata refunds when proper evidence of induction or illness is presented to the Director of Residence.

GENERAL POLICIES

Statement of Policy for Residence Halls is posted on the inside of the entrance door to each room. Each resident is responsible for knowing and observing the principles of conduct set forth in this "Statement" and any supplements thereto. The "Statement" is part of room equipment and should not be defaced or removed from the room.

The "Quiet Hour" Period (7:00 P.M. to 8:00 A.M. daily except Saturday) is the most important single point in Residence Halls policy. Its scrupulous observance by all residents contributes more than any other activity to the creation of ideal conditions for study and rest.

All students who have had less than one year of college work are required to live in the Residence Halls as long as spaces are available for assignment to them. This regula-

tion does not apply to students whose parents are residents of the City of Gainesville or who live within daily commuting distance from the University.

All rooms are subject to inspection by the Director of Residence or his representatives, and each resident is responsible for keeping his room in order. Fines may be levied and collected for failure to keep rooms neat or for damage to rooms and equipment. Pasting, nailing, screwing, or otherwise attaching pictures, hangers, racks, and similar gadgets to walls or woodwork is strictly prohibited. Thumb tacks or slip-over picture molding hangers may be used.

University Regulations prohibit the use of firearms or explosives in rooms or the Residence Halls area, cooking or keeping food in rooms, and the possession or use of alcoholic beverages in rooms or Residence Halls area.

All equipment is numbered and recorded as to location and condition. Trading, shifting, or otherwise altering the location or condition of any equipment without permission from the Office of the Director is prohibited. Items requiring repair should be reported by both equipment and room number.

SPECIAL INFORMATION AND SERVICES

Residents must furnish, unless it is otherwise arranged, their own linens, pillows, towels, blankets, bedspreads, laundry bags, study lamps, and other special items they may desire for their personal convenience.

Heavy luggage may be sent ahead, prepaid, addressed in the name of the resident. The University assumes no responsibility beyond the exercise of reasonable care for any shipments so received. Residents making such shipments must sign for them before they will be released from storage.

Residents check in at the Office of the Director of Residence to receive their room keys and pay their rent. IMPORTANT NOTE: Residents who will arrive later than the opening day of registration, or who will arrive in the evening hours after 5:00 P.M. should give advance notification of the date and hour of their arrival.

After checking in residents should: (1) pin their name cards to their room doors to aid in delivery of messages; (2) unpack trunks and heavy luggage preparatory to storing such items in the basements; and (3) obtain key case or key chain to aid in preventing loss of room key.

Limited messenger service is provided for delivering telephone messages, long distance calls, campus mail, and special delivery letters. Telephone facilities for local calls are available in the Office during office hours.

Repairs and electrical replacements needed should be reported promptly to the Director's office. Residents should not attempt to make repairs or replacements themselves; those who find any defects in their rooms or room furnishings when they move in should report them at once to make certain they are properly recorded. Burned out light bulbs should be left in fixtures till replaced by maintenance workers.

Laundry, newspaper, and dry-cleaning solicitors are allowed to service the Residence Halls only after obtaining a permit from the Director of Residence.

Valuables, money, watches, and jewelry should be properly safeguarded at all times and never left carelessly in any room. All losses should be reported promptly to the Director's Office. Room doors should be locked at all times when residents are not in their rooms. Loss of room keys should be reported promptly and arrangements made for replacements.

Janitor and maid service is furnished daily, except Sundays, for cleaning rooms, bathrooms, hallways, and stairways. Unless otherwise instructed, residents shall be required to make up their own beds daily.

PRIVATE ROOMING HOUSES

Facilities and Rates.—Many excellent rooming accommodations are available in private homes or privately operated rooming houses near the campus. Rates for rooms are approximately the same as in the University units.

Lists.—Private off-campus rooms are inspected, approved, and listed under the direction of the Dean of Students. Printed lists of approved houses may be obtained from the Office of the Dean of Students or from the Director of Residence.

COOPERATIVE LIVING ORGANIZATION

The Cooperative Living Organization, organized and operated by students to furnish economical living accommodations for its membership, is located at 237 N. Washington Street. The qualifications for membership are maximum income $25 per month, scholastic ability, and references of good character. In order to secure membership in the CLO students should apply to the CLO manager at the above address.

STUDENT EMPLOYMENT

The University of Florida has long given every possible assistance to young men of superior ability who need financial aid in order to attend college. During normal times, over one-half of the students at the University earn a part of their expenses by working on the campus or in the City of Gainesville.

AMOUNT OF EARNINGS

It is recommended that no individual, in general, attempt to earn more than one-half of his college expenses if he carries a normal academic load.

CLASSIFICATION OF WORK AND RATE OF PAY

A. Laboratory Assistants:	
1. Technical—Requiring skill and training in a particular field	40¢-60¢ per hour
2. General—Requiring some skill above common labor	40¢-45¢ per hour
3. Unskilled Labor	35¢ per hour
B. Clerical:	
1. Highly skilled in a certain field, expert stenographer and typist	40¢-60¢ per hour
2. Typing, filing, bookkeeping, and limited amount of stenographic work	40¢ per hour
3. General office work	35¢ per hour
C. Mechanical:	
1. Skilled	40¢ per hour
2. Unskilled	35¢ per hour

POLICY GOVERNING SELF-HELP AWARDS

There are usually three to four applicants for each University job available. The University Self-Help Committee, in awarding jobs under its jurisdiction, has consistently ruled that, need being equal, the individual student with the superior college record or a higher standing on placement tests plus superior high school record shall be given preference. Each student who is employed by the University must maintain a *C* average or

better, both for his total academic average and for each semester or term of attendance.

No graduate students will be used except as graduate assistants in positions requiring the training which the student has secured in college.

No student on probation of any kind will be given a position. If, while holding one, he is placed on probation, he will be required to resign the position.

NATURE OF JOBS AVAILABLE

Every attempt is made to place the student in work that utilizes his training and experience and, wherever possible, is related to his field of major study or interest. Students are employed as typists, office assistants, library workers, student assistants in the various departments, workers in the University Cafeteria, painters, etc.; in fact, work done by students ranges from duties demanding special skills to those demanding no skill except a willingness to work and learn.

WHERE TO APPLY

A. Each undergraduate student employee at the University of Florida must be certified as *Eligible for Student Employment.* "Certificate of Eligibility" is obtained at Room 3, Language Hall, where each individual should request an application form. The student should follow the instructions given with the application form.

B. For jobs administered by the Self-Help Committee, each application should be directed to the Office of the Dean of Students.

C. For jobs under departmental, college, or other administration, application may be made directly to the prospective employer, or to the Office of the Dean of Students, where proper routing will be made.

Where application is made direct to the prospective employer, an application *must* be filed with the Office of the Dean of Students as directed under *A*, immediately above.

WHEN TO APPLY

Applications should be made at least thirty (30) days before the opening of the semester or term in which employment is desired. However, at any time prior to the opening of a semester or term, or during the academic period itself, any student who needs employment should report to Room 3, Language Hall.

Direct inquiries concerning student employment and requests for application blanks should be addressed to: Office of the Dean of Students, Language Hall, University of Florida, Gainesville.

SCHOLARSHIPS

The University of Florida does not have large sums of money available for cash scholarships. Many of the scholarships available to students are awarded directly by the donors, and administered through the Business Office of the University and the Committee on Scholarships and Loans. However, there are a number of scholarships awarded and administered by the Committee on Scholarships and Loans. Also, this Committee collects all information relative to the basis of award, the value, and other pertinent facts pertaining to scholarships. The Committee also collects information on the applicants and supplies this information to donors. In some instances the Committee has been given the authority to make awards without consulting donors.

While scholarship, as evidenced by academic attainment, is an important feature in making awards, it is by no means the only consideration. The student's potential capacity to profit by college training and to make reasonable returns to society are important considerations in making all awards.

In addition to the opportunities for scholarship awards at the University, prospective students are urged to consult the resources in their home communities. Many civic clubs and community organizations are interested in providing means whereby students may attend college when they are convinced the investment will be worth while.

Unless otherwise specified, applications for scholarships listed below should be made to the Dean of Students, who is Chairman of the Committee on Scholarships and Loans at the University of Florida, Gainesville.

Arthur Ellis Ham Memorial Scholarship.—Established in 1919 by Mrs. Elizabeth C. Ham, in accordance with the last will and in memory of her husband, Captain Arthur Ellis Ham, a former student of the University, who fell in battle at St. Mihiel, France, on September 14, 1918.

Loring Memorial Scholarship.—A scholarship maintained by Mrs. William Loring Spencer in memory of her distinguished uncle, General Loring.

Albert W. Gilchrist Memorial Scholarship.—This scholarship is open to students of the junior and senior classes. Scholastic achievement is the principal basis of this award.

David Levy Yulee Memorial Scholarship.—This scholarship is awarded annually on the basis of scholarship, and is open to members of the junior and senior classes.

The Charles E. Tufts Memorial Scholarship.—The Charles E. Tufts' Estate has provided for a scholarship to be awarded to a student or students who are graduates of any high school in Hillsborough County, and who shall have demonstrated by their industry and attainments that they are in all respects worthy of such assistance. The amount of these scholarships will vary from year to year inasmuch as they are derived from an investment.

Confederate Memorial Scholarships.—These scholarships were made available by the Board of Commissioners of State Institutions under authority of Section (1), Chapter 8505 (No. 110, Laws of Florida). The amount of the scholarships is $150 per year. Applicants must be lineal descendants of a Confederate soldier or sailor.

The State Board of Education Scholarships.—These scholarships are made available by the State Board of Education for the purpose of encouraging students to prepare themselves for the teaching profession in the State of Florida. The scholarship awards are made by the State Board of Education upon the recommendation of the University's Committee on Scholarships and Loans. The examinations for these scholarships will be held in April of each year. The value of each scholarship is $200 per year. The number of scholarships for each county available to University of Florida students is determined by the number of Representatives from that county in the State Legislature.

The American Foundation for Pharmaceutical Education Scholarships.—The American Foundation for Pharmaceutical Education has established two scholarships of $200 each at the University of Florida. These scholarships are to be awarded by the Committee on Scholarships and Loans to competent and promising students in need of support to pursue the professional collegiate study of pharmacy. These scholarships are available to undergraduate students. Applicants must have completed the equivalent of one year's college work.

Duncan U. Fletcher Agricultural Scholarship.—Awarded by the United States Sugar Corporation in memory of the outstanding character of our late Senator, a scholarship of $500 annually for a period of four years to students particularly interested in agricultural activities. This scholarship will not be open in 1945-46.

James D. Westcott, Jr. Agricultural Scholarship.—Awarded by the United States Sugar Corporation in memory of the first United States Senator from Florida, a scholarship of $500 annually for a period of four years (beginning in 1945-46, this scholarship will be available for a period of three years) to students particularly interested in agricultural activities.

Sears, Roebuck Scholarships.—The Sears, Roebuck Company has given funds to the University of Florida for the establishment of a number of scholarships in the amount of $100 annually, payable in nine monthly installments, to students particularly interested in agricultural activities.

Children of Deceased World War Veterans Scholarships.—These scholarships are for the benefit of children whose parents participated in World War I or World War II. The Act providing for the scholarships is as follows: "It is hereby declared to be the policy of the State of Florida to provide educational opportunity at State expense for dependent children, either of whose parents entered the army, navy, marine or nurses corps of the United States from the State of Florida, and died in that service or from injuries sustained or disease contracted therein between the 6th day of April, 1917, and the 2nd day of July, 1921, or who have died since or may hereafter die from diseases or disability resulting from such war service; and also the dependent children either of whose parents served in any of the military or naval services of the United States from the State of Florida during the period from December 7, 1941, to the close of World War Number Two; where the parents of such children have been bona fide residents of the State of Florida for five years next preceding their application for the benefits hereof, and subject to the rules, restrictions and limitations hereof." The maximum amount to be received by any one student within a period of twelve months cannot exceed $300. Applications should be made to the State Adjutant of the American Legion of Florida.

County Agricultural Scholarships.—Provision has been made by a legislative act for a scholarship from each county—to be offered and provided for at the discretion of the Board of County Commissioners of each county. The recipient is to be selected by competitive examination. The value of each scholarship is a sum sufficient to pay for board in the dining hall and room in the dormitory. Whether such a scholarship has been provided for by any county may be learned from the Clerk of the Board of County Commissioners, or the County Agent of the county in question. If it is desired, questions for the examination will be provided and papers graded by the University.

Vocational Rehabilitation Scholarships.—The Rehabilitation Section of the State Department of Public Instruction provides limited assistance to persons who are physically handicapped. Requirements for eligibility for this assistance are as follows: the applicant must have a permanent major physical disability, he must be sixteen years old or over, he must have a good scholastic record and must take courses that will prepare him for some vocation at which he can earn a living. Applications for this assistance should be made prior to July 1 for the following school year. Students who wish to apply should write to the State Supervisor of Vocational Rehabilitation, Department of Public Instruction, Tallahassee, Florida.

United Daughters of the Confederacy Scholarships.—Scholarships have been established by various chapters of the Florida Division, United Daughters of the Confederacy. Applications should be made to Mrs. David D. Bradford, Chairman of Education, 2109 Watrous Ave., Tampa, Florida.

Duval High Memorial Scholarship.—An act creating the Duval High School Memorial Scholarship and authorizing and appropriating annually $275 of the Duval County funds as financial assistance for one worthy high school graduate is covered by House Bill No. 823, and was approved May 20, 1927.

This scholarship, created to memorialize and assist in preserving the high standards and traditions of the Duval High School, where many of Florida's worthy citizens were educated, was established by the Board of County Commissioners of Duval County, Florida. Application should be made to the Chairman of the Board of County Commissioners, Jacksonville, Florida.

Jacksonville Rotary Club Scholarship.—The Jacksonville Rotary Club maintains a scholarship of $250, which is given, at its discretion, to a student meeting such requirements as it may make pertaining to the scholarship. Application should be made to the President of the Jacksonville Rotary Club, Jacksonville, Florida.

Florida Bankers Association Scholarships.—The Florida Bankers Association awards three scholarships annually: one for North and West Florida, one for Central Florida, and one for South Florida. These scholarships are awarded on an examination given at the Annual Boys' Short Course. The examination is given and the award is made by the State Boys' Club Agent. Applications for these scholarships should be made to the Dean of the College of Agriculture, University of Florida, Gainesville.

The Colonial Dames of America Scholarships.—Eleanor Hopkins Scholarship, $250; Crawford Livingston Scholarship, $250; and the Mrs. John D. Rockefeller, Jr.. Scholarship, $250. Applications for these scholarships should be made to Mrs. Walter W. Price, 1 West 72nd Street, New York City.

Fairchild Scholarship National.—Mrs. Samuel W. Fairchild, of New York City, offers annually a scholarship amounting to $500. The award is made, by competitive examination, to a graduate in pharmacy who will do post-graduate work in the year immediately following his graduation. Examinations are held in June at the various colleges of pharmacy which are members of the American Association of Colleges of Pharmacy. Further information may be obtained from the Director of the School of Pharmacy, University of Florida, Gainesville.

Jacksonville Kiwanis Club Scholarships.—The Jacksonville Kiwanis Club maintains two scholarships for Jacksonville boys. Application should be made by letter to Miss Gladys B. Harris, Executive Secretary, Jacksonville Kiwanis Club, 603 Hildebrandt Building. Jacksonville, Florida.

Borden Company Foundation, Inc. Agricultural Scholarship.—A scholarship amounting to $300 per year for a period of five years has been made available by the Borden Company Foundation, Inc. This scholarship is available to the eligible senior student of Agriculture who has achieved the highest average grade in all college work preceding the senior year. To be eligible, students must have included in their curricula two or more dairy subjects. Application should be made to the Dean of the College of Agriculture, University of Florida, Gainesville.

LOANS

The several loan funds listed below may be divided into two classes: (1) The long-term loan fund which allows the student to complete his college education and repay the loan after graduation, in instalments over a period of years; and, (2) the short-term emergency loan fund which aims to meet the needs of unforeseen emergencies that arise in the financing of college expenses. As a rule, the short-term loans are for small amounts and are repayable within the semester.

Unless otherwise specified, application for loan funds listed below should be made to the Dean of Students, Chairman of the Committee on Scholarships and Loans, University of Florida, Gainesville.

The American Bankers Association Loan.—The American Bankers Association has allocated to the University of Florida one loan for a student whose major course is in banking, economics, or related subjects in classes of junior grade or above. The value of this loan is $250.

The Woman's Auxiliary to the Florida Medical Association Loan Fund.—The Woman's Auxiliary to the Florida Medical Association has created a loan fund to assist worthy students who are the sons of medical doctors who have been members of the Florida Medical Association for at least ten years. Loans are made in amounts not exceeding $300 for the school year.

Tolbert Memorial Student Loan Fund.—Through the efforts of various student organizations approximately $6,000 has been accumulated for making short-term loans to students to meet financial emergencies. These loans are made in amounts not exceeding $50 for periods not exceeding 90 days.

The Lions Club Agricultural Loan Fund.—The Lions Clubs of the State of Florida have set aside a fund to be used in making loans to worthy Florida students who plan to specialize in agriculture. In special cases these loans are made to gradute students, but they are not available for freshmen. Mr. Harry Schad, a member of the Gainesville Lions Club, is chairman of the committee which passes on all loans.

Summer Session Executive Council Loan Fund.—Through the efforts of the Student Government Organization of the Summer Sessions, a loan fund has been set up to take care of financial emergencies of summer school students. A total of $900 has been accumulated. These loans are made in amounts not exceeding $25 and are repayable before the close of the Summer Session. The fund is administered by a committee composed of the Dean of Students, the Custodian of University Funds, the President of the Student Body, and the Chancellor of the Honor Court.

Summer Session Miscellaneous Loans.—A total of approximately $400 has been accumulated as a loan fund. This fund was contributed by the following individuals: The Honorable R. A. Gray, The Honorable Doyle E. Carlton, Honorable Harold Colee, Mrs. Elizabeth Skinner Jackson, and the Estate of the late State Superintendent of Public Instruction, W. N. Sheats.

Rotary Loan Fund.—The Rotarians of Florida have set aside a considerable sum of money to be used in making loans to worthy boys who would not otherwise be able to attend college. The maximum loan is $150 per year. These loans are not available to freshmen. Applications for these loans should be made to the President of the Rotary Club of the city from which the student registers, or to Mr. K. H. Graham, Secretary-Treasurer, Rotary Educational Loan Fund, Inc., University of Florida, Gainesville.

The Knights Templar Student Loan Fund.—The Grand Commandery Knights Templar of Florida has a revolving student loan fund available to students in the various colleges of the State, for their junior and senior years, where satisfactory references pertaining to character and scholastic records are furnished. Students should contact local Commandery nearest their homes as their first step, and then they will be referred to a committee handling the loan.

William Wilson Finley Foundation.—As a memorial to the late President Finley, and in recognition of his interest in agricultural education, the Southern Railway Company has

donated to the University of Florida the sum of $1,000, to be used as a loan fund. No loan from this fund to an individual is to exceed $150 per year. Recipients are selected by the Dean of the College of Agriculture, University of Florida, to whom application should be sent.

Kappa Delta Pi Loan Fund.—The Kappa Delta Pi honorary educational fraternity at the University of Florida has established a loan fund for students who are pursuing work in the College of Education preparatory to entering the teaching profession. The fund at the present time amounts to $300. Further information concerning this loan fund and forms for making application for a loan may be secured from the secretary of the College of Education, Room 120, P. K. Yonge School, University of Florida.

Murphree Engineering Loan Fund.—On September 16, 1929, a friend of our late President, Dr. A. A. Murphree, gave to the Engineering College $500, to be used as a revolving loan fund. This fund was to be used in cases of emergency when, on account of financial difficulties, worthy students would be kept from graduating unless they could receive some assistance. Only in special cases are these loans made to members of the junior class. Applications for loans from this fund should be made to the Dean of the College of Engineering, University of Florida, Gainesville.

Florida Association of Architects Loan Fund.—The Florida Association of Architects has created a revolving loan fund of $500 for the purpose of aiding needy students in Architecture who have proved themselves worthy. Applications should be made to the Director of the School of Architecture and Allied Arts, University of Florida, Gainesville.

The National Society of the Colonial Dames of America in the State of Florida Loan Fund.—The National Society of The Colonial Dames of America in the State of Florida has established a loan scholarship for deserving students. This scholarship is administered by the Directors of the Florida Educational Loan Association. Application should be made to the Chairman of the Florida Educational Loan Association, Language Hall, University of Florida. Gainesville.

The Ladies' Auxiliary Fund.—The Ladies' Auxiliary of the Florida State Pharmaceutical Association has established a loan fund for deserving students of pharmacy in need of assistance. Further information may be obtained from the Director of the School of Pharmacy, University of Florida, Gainesville.

Phi Kappa Phi Loan Fund.—The Florida chapter of Phi Kappa Phi, national honorary scholastic society, has established a $250 annual loan fund for Phi Kappa Phi members. Loans will be made principally to students intending to pursue graduate work. Application should be made to Mr. B. J. Otte, Chairman, Phi Kappa Phi Loan Fund, University of Florida, Gainesville.

Senior Law Loan Fund.—A loan fund available to needy seniors in the College of Law was established by the Law class of 1938 and has been increased by subsequent gifts. Applications should be made to the Dean of the College of Law, University of Florida, Gainesville.

Benton Engineering Loan Fund.—On May 20, 1938, a friend of the late Dean Benton gave to the Engineering College $500, to be used as a revolving loan fund. This fund is to be used in cases of emergency when, on account of financial difficulties, worthy students would be kept from graduating unless they could receive some assistance. Only in special cases are these loans made to members of the junior class. Applications for loans from this fund should be made to the Dean of the College of Engineering, University of Florida, Gainesville.

Knights of Pythias Scholarship Loans.—Several scholarship loans have been established by the Grand Lodge of the Knights of Pythias. Application for these loans should be made to Mr. Frank Kellow, Secretary-Treasurer, Student Aid Department, Grand Lodge of Florida Knights of Pythias, Fort Myers, Florida.

Humble Oil Company Loan Fund.—A loan fund of $18,500 has been made available by The Humble Oil Company through the Board of Control. Applicants must have completed at least one semester of college work with a scholastic average of *C* or better. The amount of these loans will not exceed $200 per year to undergraduates. Applicants will be required to furnish a satisfactory endorser of notes. A schedule of repayment is provided whereby the borrower will be allowed a period of three years after leaving the University to complete repayment, with the understanding that at any time while in attendance at the University or after graduation or leaving the University the total amount or any part of the loan may be repaid. Loans will bear 5% interest, but will not begin bearing interest until the borrower is graduated or for any other reason leaves the University.

Lovetts and Table Supply Food Stores Welfare Association Loan and Scholarship Fund.—This Association has made available to students a loan and scholarship fund. One of the primary objectives of the Association is the furtherance of higher education through recognition, encouragement and assistance to meritorious and deserving Florida boys and girls who are eligible for college training. Fully-paid scholarships may be awarded to eligible students, and loans are also provided to take care of their living expenses.

Loans are available to students awarded the foregoing scholarships in the event they do not have adequate funds for living expenses while at college. Application therefor and note evidencing such loan must be signed by the student and his or her parent or guardian. Such loans shall be on a semester to semester basis, the amounts so advanced being placed to the student's credit at the institution attended, subject to the student's monthly withdrawal on a pro rata monthly basis. The total amount advanced is to be repayable in monthly installments over a period to be agreed upon commencing six months after graduation or six months after termination of attendance, from which time interest at the rate of 6% per annum will be charged. Application should be made to Lovetts and Table Supply Food Stores Welfare Association, Title & Trust Co. of Florida Building, 200 E. Forsyth Street, Jacksonville, Florida.

The Board of Education of the Methodist Church Loan Fund.—The Board of Education of the Methodist Church has set up a loan fund which is available to students who are members of the Methodist Church. Information relative to the conditions under which these loans are made can be secured from The Board of Education of the Methodist Church, 810 Broadway, Nashville, Tennessee; the Dirctor of the Wesley Foundation, W. University Avenue, Gainesville, Florida; or from the Office of the Dean of Students, University of Florida, Gainesville.

PRIZES AND AWARDS

Board of Control Awards.—The Board of Control annually awards the following medals:

1. The University College Declamation Medals, to the two best declaimers of the University College.
2. Junior Oratorical Contest Medals, to the two best orators of the Junior Class.
3. Senior Oratorical Contest Medals, to the two best orators of the Senior Class.

Harrison Company Award.—A set of the Florida Reports, Volumes 1-22, Reprint Edition, is offered by the Harrison Company to the senior law student doing all his work in this institution, and making the highest record during his law course.

Harrison Company First Year Award.—Redfearn on Wills and Administration of Estates in Florida is offered by the Harrison Company to the first year law student making the highest average in twenty-eight hours of law taken in this institution.

Redfearn Prize.—For the past five years Hon. D. H. Redfearn of Miami has offered a prize of $50 for the best essay by a law student on some topic of legal reform. This prize will be continued in 1945-46.

David W. Ramsaur Medal.—Mrs. D. W. Ramsaur bequeathed to the University a trust fund, the income from which is to be used to purchase annually a gold medal in memory of her husband. It is awarded to that graduate of the School of Pharmacy making the highest honor point average.

Emrich Prize.—William Emrich, Orlando pharmacist, annually gives a year's membership in the American Pharmaceutical Association to that pharmacy student who obtains the highest scholastic average in pharmaceutical subjects during the junior year.

Lehn & Fink Medal.—The Lehn & Fink Products Corporation annually awards a gold medal to a graduate in the school of Pharmacy for excellency in courses in Pharmacy, Pharmacognosy and Pharmacology.

Rho Chi Prize.—Iota Chapter of Rho Chi, honorary pharmaceutical society, annually gives a key to the junior pharmacy student who obtains the highest scholastic average during the sophomore year.

Attwood Leadership Award.—Mr. J. K. Attwood, Jacksonville pharmacist, annually offers a wrist watch to that senior pharmacy student who has shown outstanding leadership among his class mates and in campus activities. The award is given by vote of the faculty of the School of Pharmacy.

Groover Cup.—The late F. C. Groover who was president of the Groover-Stewart Division of McKesson and Robbins, gave a large silver loving cup which is awarded to the graduating class in the School of Pharmacy attaining the highest general average in scholarship and is held by that class until this average is exceeded by a subsequent graduating class.

Haisley Lynch Medal.—The University is grateful to Mrs. L. C. Lynch of Gainesville for her gift of the Haisley Lynch Medal for the best essay in American history. This medal is awarded annually by her in loving memory of her son, Haisley Lynch, a former student of the University who was killed in action in France during World War I.

Gargoyle Key.—Gargoyle Society awards a gold key each year to the graduate of the General College, who, in the opinion of the members, was outstanding in scholarship, leadership, initiative, and general ability. To be eligible for this award the student must have completed the fundamental course in Architecture or that in Painting.

The David Levy Yulee Lectureship and Speech Contest.—Under the provision of the will of Nannie Yulee Noble, a sum of money was bequeathed to the University of Florida, the income of which was to be used to bring outstanding speakers to the University to deliver lectures to the student body and faculty on the general topic "The Ideal of Honor and Service in Politics."

The James Miller Leake Medal.—This is a medal awarded annually for an essay in American History. The medal is given by the Gainesville Chapter of the Daughters of the American Revolution and named for the Head of the Department of History and Political Science of the University of Florida.

Fine Arts Society Award.—The Fine Arts Society annually offers a gold medal and citation to the outstanding student receiving the baccalaureate degree in the School of Architecture and Allied Arts in recognition of his scholastic standing and leadership. The award is offered only when there are five or more students graduating.

Phi Sigma Society Scholarship Award.—The Phi Sigma Society, national honorary biological society, awards each year a medal to the undergraduate or graduate student who is considered to have done outstanding work in one of the fields of the biological sciences. Research achievement and scholarship count equally.

Sigma Tau Award.—The Upsilon Chapter of Sigma Tau awards annually a medal for scholastic ability to the sophomore in the College of Engineering who, during his freshman year, made the highest average in his scholastic work.

Sigma Delta Chi Scholarship Key Award.—Sigma Delta Chi, professional journalistic fraternity, awards annually a key to ten percent of the students graduating in journalism who have the highest scholastic average for the three years' academic work immediately preceding the year in which the nominees are candidates for degrees.

Dillon Achievement Cup.—Mr. Ralph M. Dillon, Tampa, has given a large silver loving cup on which is engraved each year the name of that student graduating in journalism who, in the opinion of the Dean of the College of Arts and Sciences and the faculty of the Department of Journalism, possesses the highest qualifications for service to the press of Florida.

Delta Sigma Pi Scholarship Key.—Each year the Florida Chapter of the international fraternity of Delta Sigma Pi, professional business administration fraternity, awards a gold key to that male senior in the College of Business Administration who upon graduation ranks highest in scholarship for the entire course in Business Administration.

Beta Gamma Sigma Scroll.—Each year the Florida Chapter of Beta Gamma Sigma, national honorary business administration fraternity, awards a scroll to the junior in the College of Business Administration who, during his preparatory work in the General College, made the highest scholastic average of all students who entered the College of Business Administration.

The Chapter Scholarship Award.—A Certificate of Merit, signed by the President of the American Institute of Chemical Engineers and the Chairman of the Committee on Student Chapters, and a student membership badge are given to the junior in Chemical Engineering who is a member of the Student Chapter and who has attained the highest scholarship standing during his freshman and sophomore years.

Alpha Kappa Psi Scholarship Medallion.—Each year Alpha Kappa Psi, international professional fraternity in commerce, awards a white gold-bronze medallion to the senior in the College of Business Administration who for his first three years at the University of Florida has been most outstanding in scholarship and campus activities and has shown the most likely qualifications for a successful business career in the future.

Tau Alpha Nu Award.—Tau Alpha Nu, honorary forestry fraternity, awards each year a one-year subscription to the Journal of Forestry to the General College student who, upon entering the School of Forestry, has made the best scholastic and activity record in the General College.

The James A. Srtipling School Plant Design Prize.—A book on school design is awarded annually by Mr. James A. Stripling of the State Department of Education to the student in the School of Architecture and Allied Arts who submits as part of the regular projects in Architecture the best solution of Project 15, "A High School."

The American Institute of Architects Silver School Medal.—The American Institute of Architects presents, each year, to the School of Architecture and Allied Arts, a silver medal to be awarded to a student in Architecture who, by his scholarly standing and character is qualified to receive the award. This medal is accompanied by a copy of the book "Mont Saint Michel and Chartres" by Henry Adams. A copy of this book is also presented to a second student in the School, similarly qualified and who is considered a runner-up.

St. Petersburg Times Trophy.—A trophy is awarded by the St. Petersburg Times to the student who has performed the best all-round service to his newspaper and the University; limited to student correspondents of daily newspapers in Florida working in cooperation with the Department of Publicity.

Interfraternity Debate Cup.—A silver loving cup is awarded to the fraternity winning the Intramural Debate Tournament. The cup becomes the permanent possession of the fraternity winning three years in succession.

STUDENT REGULATIONS

For information relative to graduation, failure in studies, conduct, social activities, etc., the student should consult the *Bulletin of Student Regulations* and the sections of the Catalog containing regulations of the separate Colleges and Schools. Each student is held responsible for observance of the rules and regulations of the University insofar as they affect him. Some regulations and interpretation supplementing the *Bulletin of Student Regulations* are given here.

CREDITS

The term credit as used in this bulletin in reference to courses is equal to one semester hour.

DEGREES

The Board of Control will confer the degree appropriate to the course pursued under the following conditions:

1. *Curriculum requirements.*—Certification by the Registrar and the Dean of the college concerned that all requirements of the course of study as outlined in the college announcement, or its equivalent as determined by the faculty of the college offering the course, have been completed.

2. *Recommendation of the faculty.*

3. *Residence requirements.*—(a) The minimum residence requirement for the baccalaureate degree is two regular semesters, or one regular semester and three summer terms, or five summer terms. New students offering advanced standing must meet this requirement after entrance to the University. Students who break their residence at the University by attending another institution for credit toward the degree must meet this requirement after re-entering the University. (b) For the master's degree two regular semesters or six summer terms are necessary to satisfy the residence requirements. (c) Students are required to complete the last thirty credit hours (twenty-eight in the College of Law) applied towards the baccalaureate degree during regular residence in the college from which the student is to be graduated. Exception to this regulation may be made only upon written petition approved by the faculty of the college concerned.

4. *Attendance at commencement.*—All candidates for degrees are required to be present at commencement exercises (Baccalaureate Sermon and Commencement Convocation). A student who fails to attend shall not have his degree conferred until he makes another application and complies with this requirement.

MAXIMUM AND MINIMUM LOAD

Some colleges have a maximum load regulation which is stated in the description of the college in this bulletin. In the absence of such statement the general University regulation is followed. This regulation allows a maximum load of 17 hours for an average below C made during preceding term of attendance and 21 hours for an average above C during the preceding term of attendance. The minimum load is 12 hours.

GRADUATION WITH HONORS

Graduation with Honors is voted by the faculty concerned and is not automatically granted upon the achievement of any minimum average. Some colleges state the minimum average required for consideration by the faculty. Where no mention is made in the college section of this bulletin on the requirements for consideration the student is advised to consult the dean of the college for detailed information.

For graduation with High Honors the above statement applies, except that in most colleges some independent work or an examination or both are prerequisite for consideration by the faculty. The student should consult the dean of the college for further information.

DIVISION OF ATHLETICS AND PHYSICAL EDUCATION

The type of athletic program undertaken by the Division of Athletics and Physical Education at the University of Florida compares favorably with that in leading universities. The University of Florida, with eleven other colleges and universities in the states of Alabama, Georgia, Kentucky, Louisiana, Mississippi, and Tennessee, is a member of the Southeastern Conference and is guided by the policies and regulations of that conference.

PHYSICAL FITNESS PROGRAM

The problem of physical fitness is one of the major problems of the War. Because of this the University of Florida maintains a physical fitness program required of all male students during their stay at the University. The program includes physical examination and advice as to needed medical and dental care and a program of physical exercise.

Physical Examination.—Each male student registering for the first time will be required to furnish a report of physical examination on the form provided for this purpose by the University Physician. Additional physical examinations will be made by the University Physician when, in his opinion, such examinations are necessary.

The Physical Fitness Program Required of All Male Students.—The physical exercise program is conducted in regularly scheduled sections meeting three periods per week. The registration forms for a male student cannot be accepted until he has arranged his schedule to include one of the regular sections. Students certified for restricted activity by the University Physician will be given special programs designed to fit their physical condition.

Attendance Required.—The following regulation concerning absences from scheduled meetings of the Physical Fitness Program applies to all male students.

When a student has accumulated four absences which are not properly accounted for, he shall be on probation. When a student has accumulated six absences which are not properly accounted for he may be reported to the Committee on Discipline with the recommendation that he be dropped from the University.

INTRAMURAL AND INTERCOLLEGIATE ATHLETICS

The second major sub-division of this Department is that in which are included intercollegiate athletics. These sports are divided into two groups, generally known as major

and as minor sports. In the major group are football, basketball, boxing, baseball, swimming, and track; and in the minor group, tennis, golf, and cross country. The equipment includes two baseball diamonds, four athletic fields, twelve handball courts, two indoor basketball courts, twelve tennis courts, a large outdoor swimming pool, a concrete stadium with a seating capacity of 23,000, and one quarter-mile running track, providing permanent seats for approximately 1,500.

The function of the Intramural Department is to encourage the entire student body to participate in organized athletic sports and wholesome recreation. The Department provides facilities for such competition and recreation; organizes and promotes competition between students, groups, and individuals; and fosters a spirit of fair play and sportsmanship among participants and spectators.

The program of intramural activities includes the following sports: golf, swimming, horseshoes, touch football, basketball, boxing, diamondball, tennis, handball, track, shuffle board, ping pong, and badminton.

The proper utilization of leisure time through recreation and play is splendidly expressed in this program. It is estimated that about seventy per cent of the students take part in sports sponsored by the Department. There is a decided trend toward the expansion of recreational facilities for a large group of students as opposed to intense competition for a few.

The rules of the Southeastern Conference permit member institutions to award scholarships to athletes. Awards are made in the form of board, rent, books and similar items, instead of cash and may be continued from year to year to those students whose records prove satisfactory. As a rule, the awards are made only to those unable financially to attend the University without assistance and whose standards of conduct and scholarship are worthy of consideration. The awarding of Athletic Scholarships is subject to the approval of the University Scholarship Committee. Further information may be secured by writing to the Dean of Students, who is Chairman of that Committee.

BUREAU OF VOCATIONAL GUIDANCE AND MENTAL HYGIENE

The services of the Bureau of Vocational Guidance and Mental Hygiene, maintained by the University, are available to all students. The chief function of this Bureau is to analyze the characteristics, interests and abilities of the individual student; and to present these comparisons to the individual together with complete descriptions of the occupations involved, in order that he may choose more intelligently the vocation which he will make his life work.

Since the most scientific and reliable method of checking the traits of the individual is by means of various types of tests, the Bureau uses numerous vocational tests, some of a general nature and given as a preliminary measure to all who apply for guidance, and some of a more specific variety for use in the particular instances where they are needed to supplement the other information obtained.

It is most important also that the student know something about the qualifications for different types of work, the advantages and drawbacks, salary range, and other similar information with regard to each. In order to satisfy this need, the Bureau has established and maintains a vocational guidance reading shelf in the Library which is supplied with a series of career monographs embracing numerous occupations. This material is clearly presented, compact, and scientific, being a compilation of the results of extended research.

In addition to the vocational service previously described, the Bureau offers a much needed service to the students who find their work hampered by the continual recurrence

of various problems, worries, maladjustments, and unnatural emotional conditions. This service is open to those who request it of their own accord, and also to those who consult the Bureau upon advice of members of the faculty and administrative officers.

Further information concerning these services may be obtained from the office of the Director of the Bureau, Room 110, Peabody Hall.

GENERAL EXTENSION DIVISION

The General Extension Division of the University of Florida offers educational opportunities and numerous services to persons who are removed from the campus.

The Division represents the Colleges of Agriculture, Arts and Sciences, Education, Engineering, Business Administration, School of Forestry, and the School of Pharmacy of the University, and the College of Arts and Sciences and the Schools of Education and Music of the State College for Women.

Formal courses for college and some high school credits are offered through the Department of Correspondence Study. Wherever a sufficient number may be enrolled, university classes are offered by the Department of Extension Classes.

The Department of Women's Activities offers information and instruction on subjects of particular interest to groups of Florida women. Citizens are encouraged to inform themselves about their government, and to participate in its functions. For this purpose the organization of forums is encouraged, courses are offered, and print, film and other materials describing the programs and services of national and state departments and bureaus are circulated by the Department of Citizenship Training. The Department of Auditory Instruction gives assistance in developing cultural and informational programs through speakers and recorded lectures.

The Public Service Training Center organizes basic in-service training and refresher courses for old and new public employees. Several such programs are now being carried on, and the Division will cooperate with any interested group of public employees in working out similar training in their particular fields. Public officials are furnished information and data, and surveys and studies may be arranged upon request when the recipient will pay the additional costs.

Short Courses, institutes, and conferences for professional, business, trade, civic, and welfare organizations are conducted by the Division in cooperation with the interested groups.

Through the Departments of Visual Instruction and General Information and Service, the world of letters and arts and music is carried to thousands in more isolated communities by means of plays, books, package libraries and art exhibits. A picture of the world and its work is circulated in stereopticon slides and films furnished for instruction and entertainment. Recorded music and orchestral scores are loaned for work in music appreciation and culture.

These and the various service functions of the Division establish contacts which enable the University to aid individuals, organizations and communities, and to contribute to adult education.

The Division is carrying on numerous war activities: It offers extension courses at reduced fees for men in the Armed Forces; it acts as Coordinator of Training for the State Defense Council; it gives special instruction to help relieve the teacher shortage, and to prepare new state employees for their work; it conducts short courses in fields of wartime interest for various groups; and it assists many of the federal agencies in their educational work in the state.

THE DIVISION OF MILITARY SCIENCE AND TACTICS

The University of Florida, as other Land Grant Colleges, offers instruction in Military Science as an integral part of its curricula. The unit at the University gives instruction in Infantry. A staff of army officers and a detachment of enlisted men provide the necessary personnel for the administration and instruction of cadets and for the maintenance of the equipment required for the course. For the school year 1945-46, the War Department offers the Basic course only which consists of the first four semesters. After a student is assigned to Basic Military he must complete the four semesters of the Basic course unless exempt for physical reason by the University Physician.

MILITARY SCIENCE AS A REQUIREMENT OF THE UNIVERSITY

Students enrolled in the Basic course must carry it to completion as a prerequisite to graduation.

STUDENT EQUIPMENT

Students are issued regulation government uniforms except that the student will be required to provide, at his own expense, a pair of tan shoes or oxfords of plain design. A student is held financially responsible for any uniform or equipment issued to him and for the prompt return thereof when called for. Army manuals will be issued to each student as texts for the course.

STATUS OF STUDENTS WHO HAVE HAD MILITARY TRAINING AT OTHER SCHOOLS

Students transferring from other Universities with Senior ROTC Units are allowed college credit for Military Science completed at such institutions to the amount allowed by the institution from which the transfer is made provided such credit does not exceed eight semester hours for the Basic course. The eligibility for admission of such students to Military Science courses at the University of Florida is determined by the Professor of Military Science and Tactics. Students who have completed some Military Science in schools having Junior ROTC Units may be allowed to enter that semester of Military Science at the University of Florida for which their previous training has qualified them in accordance with War Department Regulations and as determined by the Professor of Military Science and Tactics. In such cases no college credit can be given for previous Military Science under the University regulation which does not permit the allowance of college credit for any work completed in secondary school.

DIVISION OF MUSIC

The Division of Music offers opportunity for membership in three musical organizations: the University Band, the Glee Club, and the Symphony Orchestra.

All University of Florida students who qualify are eligible for membership in any of these organizations.

The Band performs at all football games within the State and makes at least one out of state trip each season. The Band plays at military parades on the campus, gives a number of concerts and broadcasts during the second semester, and performs at such public functions as the Gasparilla Celebration, the Governor's Inauguration, etc.

The University of Florida Glee Club is composed of men enrolled in the University who are interested in choral singing. The Glee Club makes several trips through the State, particularly during the second semester. Members of the Glee Club are heard regularly each week over the radio in a broadcast period known as the University Hour.

The University of Florida Symphony Orchestra affords an opportunity for the study

and performance of symphonic and classical music, makes a number of trips through the State each season and gives a number of concerts and broadcasts on the campus.

Private lessons are offered by the members of the faculty of the Division of Music. These private lessons are arranged as follows:

1. Orchestra and band instruments, Mr. Brown.
2. Voice, including radio broadcasting, Mr. DeBruyn.
3. Piano, Organ, Harmony and Counterpoint, Mr. Murphree.

Lesson periods are arranged at the convenience of the instructor and pupil. Instructors may be consulted concerning lesson periods and rates.

UNIVERSITY OF FLORIDA BAND

A student may elect to combine Band practice and drill with the study of Military Science and Tactics, in which case he will register for proper basic course in Military Science and attend theory classes in Military Science, combining Military drill with Band drill in accordance with the regulations of the Division of Military Science and Tactics. Completion of the Basic course in Military Science in this manner will satisfy the University requirements for Basic Military Science.

A student who is physically disqualified for Military Science, or is exempt from Military Science in accordance with University Regulations, may elect to register for Bd. 111-112 the first year and Bd. 211-212 the second year.

Students will not be permitted to earn more than eight hours (two years' work) in Band, nor more than a total of eight hours in Military Science and Band. Positively no credit will be allowed for Band unless the student registers in the regular manner even though he participates in Band work.

SUMMER SESSION

During the summer months the University operates a twelve weeks Summer Session organized in two terms of six weeks each. The Summer Session provides a means for acceleration of program for the students of the Regular Session with a selected list of offerings from each of the Colleges and Schools.

Since women are admitted to the Summer Session the offerings of the College of Education are expanded to include courses of particular interest to teachers in the elementary and primary fields, and the offerings of many other departments are selected to provide both graduate and undergraduate courses especially helpful to teachers in both the elementary and secondary fields. Detailed information is given in the *Bulletin of the Summer Session* which is usually published in April.

UNIVERSITY OF FLORIDA LIBRARIES

The University Library system consists of the following units: The Main Library; the Chemistry-Pharmacy Library; the School of Architecture Library; the Florida Union Library; the P. K. Yonge Memorial Library of Florida History; the General Extension Library; the P. K. Yonge School Library; the Agricultural Experiment Station Library; the Curriculum Laboratory Library; the Fulk Administrators Library; the College of Law Library, and the School of Forestry Library. The last named five have separate administrations, but all holdings are shown in the central card catalog of the Main Library, with the exception of the newly organized P. K. Yonge Memorial Library, which is not yet cataloged.

The combined book collection numbers 246,118 volumes, of which about 170,000 are in the Main Library. The libraries provide facilities for library work in the various courses offered by the University and for research work in the different fields.

The Main Library has two large reading rooms: one, on the ground floor, is assigned for reading in the General College, and for reserve books; one, on the second floor, is for reference books, current periodicals, newspapers, circulation desk and card catalog. The stacks are accessible to graduate students and faculty members. There are forty-eight carrels for the use of graduate students.

The Libraries have files of the principal American and foreign periodicals of general interest, as well as periodicals of special interest in connection with the work of the various schools and colleges. About 1,500 periodicals are received. The University is a depository of United States documents, so receives all publications of the government.

The P. K. Yonge Library of Florida History is a collection of Floridiana brought together during the past forty years by Philip Keyes Yonge and his son, Julien C. Yonge of Pensacola. This collection, the most comprehensive and valuable in the state, comprising rare books, maps, manuscripts, newspaper files of the last century, documents, and other records, all relating to Florida, has been generously presented to the University by Julien C. Yonge as a memorial to his father. It is now located on the third floor of the Law Building. When cataloged, it will include Florida material collected in past years by the Main Library. Microfilm of archives relating to Florida is constantly being added, as are gifts of historical material by citizens of the State, which increases its usefulness as a research center.

The Main Library is open from 7:45 A. M. to 10:30 P. M. every week day except Saturday, when it closes at 1:30 P. M. During the regular session it is open on Sundays from 2:00 P. M. to 6:00 P. M. The Reserve Room is open on Sunday night from 8:30 to 10:30.

The other libraries maintain hours to suit the convenience of their users.

THE FLORIDA STATE MUSEUM

The Florida State Museum was created by an act of the legislature in 1917 as a department of the University of Florida.

The main objective of the Florida State Museum is to collect, preserve and interpret data concerning the history of Florida, both natural and civil. In the natural history of the state the endeavor is to collect the minerals and exhibit them in connection with their manufactured products of economics and commerce; to collect the fossils of vegetable and animal life showing the evolution of life through the geologic ages; to collect specimens of recent vegetable and animal life illustrating the flora and fauna of the state in connection with their economic and commercial enterprises. In the civil history of the state the endeavor is to collect material and data of the works of mankind from the early aborigines on up through the beginning of civilization to the present time; to maintain exhibits of artifacts of early man, and exhibits of articles in the economic, industrial and social life showing the advancement of civilization.

To maintain a department of archives for the preservation of the records of the state; to maintain a library of publications pertinent to the general and diversified activities of the museum; to maintain a gallery of art for the preservation and exhibit of portraits of persons who have been responsible for making Florida a better place to live, and for the exploitations of works of art for the edification of and as a social center for our citizens; to maintain a department of museum extension among the schools and communities of the state; to publish reports, bulletins, and monographs of the progress of the work are

some of the activities for which the Florida State Museum strives, and for which the law provides.

In carrying on the general activities as above outlined the Florida State Museum now has a total of 388,964 specimens catalogued at an inventoried value of $469,738.14, the majority of which have been presented or provided by will. The museum is free to the public every day in the year. A record of 149,062 visitors, since moving to the present location, is shown by an electric eye register installed in the entrance to the museum.

INSTITUTE OF INTER-AMERICAN AFFAIRS

The University of Florida established the Institute of Inter-American Affairs on June 2, 1930, to foster better educational and cultural relations between the countries of the Western Hemisphere.

The Faculty Committee on Inter-American Affairs, appointed by the President of the University, is the governing body of the Institute and controls the policies and program with the guidance and recommendations of the Advisory Council, made up of individuals pre-eminent in their separate fields and especially interested in Inter-American Affairs. The executive officer is the Director appointed by the President of the University, and directly responsible to him and to the Faculty Committee for the performance of his duties.

The Institute of Inter-American Affairs was founded with the following specific aims: (1) to foster international good will between the Americas, (2) to promote the teaching of Western Hemisphere languages and civilizations in schools, colleges and universities, (3) to encourage the exchange of students and professors between colleges and universities of the Americas, (4) to hold conferences and institutes on Inter-American Affairs, (5) to stimulate specific studies common to the Americas, (6) to promote an interplay of cultural ideals, (7) to stimulate exchange of ideas, and (8) to advance Inter-American interests in all fields of human endeavor.

RADIO STATION WRUF

WRUF, State and University of Florida Radio Station, operates on 850 kilocycles, with a power of 5,000 watts until sunset Denver, then 100 watts by special authorization of the Federal Communications Commission. It is a full time, clear channel operated station and a unit of the University. It is a member of the Mutual Network.

One of WRUF's more important functions is that of furnishing practical experience to students enrolled in the Radio Broadcasting Training program of the University. The extent to which this policy is applied is demonstrated by the fact that, until the time of Pearl Harbor, the operating personnel of WRUF consisted entirely of University students specializing in radio work, and the effectiveness of this training is demonstrated by the nationwide reputation which WRUF has achieved for developing some of this country's leading announcers and radio executives. The various Radio Broadcasting Training Curricula in addition to providing this practical operating experience require a selection of courses from many of the departments of instruction of the University. The student is taught an awareness of the social obligations placed on any medium whose purposes include public entertainment, information, education, and cultural advancement. He is given the broadest possible background, to the end that the social implications of radio as a medium for influencing the public may be recognized and acted upon. These are important aspects of the program and should be the beginning of the building of a breadth of viewpoint on the part of the student which he will continue to cultivate by reading and study after he has completed the training program. For more specific information regarding the Radio Broadcasting Training Curricula see page 111.

The distinctiveness of Radio Station WRUF for the listener, results from the fact that its close collaboration with the University in carrying various educational programs gives it a greater variety of broadcasts than will be found in the case of the ordinary commercial station.

HEALTH SERVICE

Through the Student Health Service the University makes available to any student physical examinations, health consultations, and medical attention. General service is provided free of charge, but special fees are charged for services which are individual in character, such as dentistry, X-rays, laundry in the Infirmary, special drugs and serums, major surgery, including fractures, except minor types, special nurses, etc. No student, however, will be denied service because of inability to pay these fees.

The University Infirmary and the offices of the Health Service are on the campus. The Infirmary is open day and night for the admission of patients. Emergency treatment may be obtained at any time by reporting to the Infirmary. Students who are ill should be instructed before leaving home to always report immediately to the Infirmary if they are ill.

It is the aim of the Health Service not only to function as a Health Service and render preventive measures, but to provide full hospital care in cases of illness. The Infirmary is rated as a Fully Approved Hospital by the Examining Board of the American College of Surgeons.

The facilities of the Dispensary are such that any number of students can be given attention in a day. The Dispensary is maintained to offer conferences with physicians, examinations, diagnosis, and treatment of minor injuries and illness which a student may suffer. The student is encouraged to use this service freely in order that he may avoid more serious illness by the lack of treatment or from improper treatment.

Daily sick call is at 12:30 P.M., Sunday 12:00 Noon, and a physician is in attendance. The Dispensary is open from 8:00 A.M. to 8:00 P.M. and a graduate nurse is in attendance for treatments and First-Aid. After hours the night nurse will render First-Aid in case of necessity.

Until the war is over all cases of major surgery and prolonged or serious illness will be transferred to the local City hospital at the expense of the patient. With the return of peace, sufficient personnel, nurses and resident physicians will be obtained and it will be possible to resume the care of all type of cases at the Infirmary.

Students with Epilepsy, Organic Heart Disease, Asthma, Rheumatic Fever and Diabetes, must provide a statement from their parent or guardian relieving the University of any responsibility for the treatment of their disability. The Department will cooperate in any way possible with their regular physician in administering any treatment he may order and will keep the student under observation making reports to him as desired.

Local physicians are available for medical service to students at their places of residence at their own expense and at any time.

VACCINATION

Prospective students are advised to be vaccinated against smallpox and to be inoculated against typhoid fever. Unless a certificate is presented showing successful vaccination within five years, students will be vaccinated against smallpox at the time of registration.

FLORIDA UNION

Florida Union serves a three-fold purpose. It is the official center of student activities and presents a broad program of recreation and entertainment for the student body; it is

the campus home of faculty, students, alumni, and friends of the University; it aids in establishing a cultural pattern which will distinguish Florida men. The building is open daily from 8:00 A.M. until 10:00 P.M. The game room, reading room, lounge rooms, and various meeting rooms are available to the student body. The offices of the Student Body, the Y.M.C.A., Alumni Association, and the Publicity Department of the University are located in the Florida Union. A soda-fountain and the bookstore in the annex offer attractive service at the most economical prices. A cordial welcome always awaits every student at the Florida Union.

In addition to its facilities on the campus, the Union operates the University's Camp Wauburg, located on a beautiful lake about nine miles from the campus. Here students are offered opportunities for swimming, fishing, and other wholesome outdoor activities.

STUDENT ORGANIZATIONS AND PUBLICATIONS

Student Government.—Student government in the University of Florida is a cooperative organization based on mutual confidence between the student body and the faculty. Considerable authority has been granted the Student Body for the regulation and conduct of student affairs. The criterion in granting authority to the Student Body has been the disposition of the students to accept responsibility commensurate with the authority granted them. Generally speaking, the fields of student activity include regulation of extra-curricular affairs and the administration of the Honor System.

Every enrolled student, having paid his activity fee, is a member of the Student Body and has an equal vote in its government.

The University authorities feel that training in acceptance of responsibility for the conduct of student affairs at the University is a valuable part of the educational growth of the individual student. The Student Body is practically a body politic, occupying its franchise under grant from the Board of Control and subject to its continued approval.

Student government is patterned on the state and national form of government, but adapted to the local needs of the Student Body. Powers are distributed into the three branches: (1) legislative, which is embodied in the Executive Council; (2) judicial, which is embodied in the Honor Court with penal and civil jurisdiction of all judicial matters; (3) executive, embodied in the President and shared with the Vice-President and the Secretary-Treasurer of the Student Body. Members of all three branches are elected directly by the Student Body once a year.

Student government enacts and enforces suitable laws, and promotes athletics, debating, publications of the Student Body, entertainments of a general educational value, and such other activities as the Student Body may adopt. The officers of the Student Body are the President, Vice-President, Secretary-Treasurer, members of the Honor Court, Athletic Council, Executive Council, Lyceum Council, editors and business managers of student publications, and student members of the Board of Student Publications.

Debating.—Practice in debating is open to all students through the programs of the varsity and General College debate squads. This work, which is sponsored by the Debate Club, is under the direction of the Department of Speech, and culminates in an extensive schedule of intercollegiate debates.

Dramatics.—Any student has an opportunity to participate in several plays which are presented each year by the *Florida Players,* a dramatic group under direction of the Department of Speech.

Executive Council.—The Executive Council is composed of representatives elected from the colleges on the campus and in general acts as administrator of Student Body affairs. The Athletic Council and the Lyceum Council have jurisdiction over their respective fields.

Publications.—The Student Body normally publishes *The Seminole,* the year book; *The Florida Alligator,* the student newspaper; *The "F" Book,* the student's guide; and *The Orange Peel,* the campus literary magazine. For the duration of the war these publications have been suspended with the exception of *The Florida Alligator* and *The Seminole.*

Y. M. C. A.—The purpose of the Young Men's Christian Association is to provide a medium through which the highest ideals of education and religion may be expressed in terms of service. The program of the Association is planned to meet definite needs as they become apparent. There is no membership fee. Any student may become a member by subscribing to its purpose and contributing to its support. A secretary having extensive experience with the problems of students is available for counsel and help.

Social Fraternities.—Twenty-one national social fraternities have established chapters at the University; most of them have already built chapter houses and others have leased homes. The general work of the fraternities is controlled by the Interfraternity Conference, composed of two delegates from each of the national fraternities. The national fraternities at Florida are Alpha Gamma Rho, Alpha Tau Omega. Beta Theta Pi, Chi Phi, Delta Chi. Delta Tau Delta, Kappa Alpha, Kappa Sigma, Lambda Chi Alpha, Phi Delta Theta, Phi Gamma Delta, Phi Kappa Tau, Pi Kappa Alpha, Pi Kappa Phi, Pi Lambda Phi, Sigma Alpha Epsilon, Sigma Chi, Sigma Nu, Sigma Phi Epsilon, Tau Epsilon Phi, and Theta Chi.

Professional and Honorary Fraternities.—Alpha Epsilon Delta, pre-medical; Alpha Kappa Psi, business; Alpha Phi Omega, service; Alpha Psi Omega, dramatics; Alpha Tau Alpha, agricultural education; Alpha Zeta, agricultural; Beta Alpha Psi, accounting; Beta Gamma Sigma, commerce; Delta Sigma Pi, commerce; Florida Blue Key, leadership; Gamma Sigma Epsilon, chemical; Gargoyle Club, architectural; Kappa Delta Pi, teachers; Kappa Epsilon. women's pharmaceutical; Kappa Gamma Delta, aeronautical; Kappa Kappa Psi, band; Kappa Phi Kappa, teachers; Los Picaros, Spanish; Phi Alpha Delta, law; Phi Beta Kappa, scholastic; Phi Delta Phi, law; Phi Eta Sigma, freshman scholastic; Phi Kappa Phi, scholastic; Phi Sigma, biological; Pi Delta Epsilon, journalistic; Pi Gamma Mu, social science; Rho Chi, pharmaceutical; Scabbard and Blade, military; Sigma Delta Chi, journalistic; Sigma Delta Psi, athletic; Sigma Tau, engineering; Sigma Xi, scientific research; Tau Alpha Nu, forestry; Tau Kappa Alpha, debating; Thyrsus, horticultural.

Clubs and Societies.—Agricultural Club; American Institute of Chemical Engineers, Student Branch; American Institute of Electrical Engineers, Student Branch; American Pharmaceutical Association, Student Branch; American Society of Agricultural Engineers, Student Branch; American Society of Civil Engineers, Student Branch; American Society of Mechanical Engineers, Student Branch; Bacchus, freshman social; Baptist Student Union; Benton Engineering Society; Bishop Barry Club—Catholic Student Group; Block and Bridle Club; Cavaliers, social; Colonels, social; Debate Club; English Club; Episcopal Club, Student Branch; "F" Club, athletic; F. F. F. Club (Y.M.C.A.); Fine Arts Club; Florida Fourth Estate Club, journalistic; Florida Players; Florida Rifles, rifle and pistol club; Forestry Club; Gator Pep Club; Glee Club; International Relations Club; John Marshall Debating Society; Language and Literature Club; L'Apache, social; Leigh Chemical Society; Mortar and Pestle, pharmacy club; Newell Entomological Society; Newman Club, Catholic Student Branch; Pirates, social; Presbyterian Student Session; Society for Advancement of Management, Student Branch; University Radio Guild; Wesley Foundation, Methodist Student Branch; White Friars, social; Y.M.C.A.

HONOR SYSTEM

The Honor System.—One of the finest tributes to the character of the students at the University of Florida is the fact that the Student Body is a self-governing group. The

details of the system by which this result is reached will be explained to all freshmen during the first week of their enrollment in the University. However, each parent, as well as each prospective student, is urged to read the following discussion of the Honor System, as this phase of student government forms the keystone of the entire system.

In addition to permitting student legislation on questions of interest to the members of the Student Body, execution of the laws passed, and the expenditure of student funds, the governing system at the University gives to the students the privilege of disciplining themselves through the means of the Honor System. Inaugurated by some of our greatest educators in higher institutions of the nation and early adopted in some departments of the University of Florida, the Honor System was finally established in the entire University in 1914 as the result of student initiative. This plan, having met with the approval of all officials of the University, was given the sanction of the Board of Control, and student representatives were selected by the students to administer the system.

Among the basic principles of an Honor System are the convictions that self-discipline is the greatest builder of character, that responsibility is a prerequisite of self-respect, and that these are essential to the highest type of education. Officials of the University and the Board of Control feel that students in the University of Florida should be assumed to be honest and worthy of trust, and they display this confidence by means of an Honor System.

The success of the System is dependent upon the honor of each individual member of the student body in that: (1) he is duty-bound to abide by the principles of the Honor Code, and (2) he is further pledged to report to the Honor Court such violations of the Code as he may observe.

Many men coming to the University for the first time may feel hesitant about assuming this responsibility, inasmuch as early school training has created feelings of antipathy toward one who "tattle-tales" on a fellow-student. The theory of an Honor System adequately overcomes this natural reaction, however, when it is realized that this system is a student institution itself, and not a faculty measure for student discipline, and that to be worthy of the advantages of the Honor System each student must be strong enough to do his duty in this regard. In this way the responsibility for each man's conduct is placed where it must eventually rest—on himself.

The Honor Code of the Student Body is striking in its simplicity; yet it embodies the fundamentals of sound character. Each man is pledged to refrain from:

(a) cheating, (b) stealing, (c) obtaining money or credit for worthless checks.

On the basis of this Code, students are extended all privileges conceived to be the basic rights of men of Honor. There are no proctors or spies in the examination rooms, each student feeling free to do his work, or to leave the room as occasion arises. Secondly, fruits and supplies are placed openly on the campus, with the confidence that each man will pay for any he may take. This system makes each man the keeper of his own conscience until he has proved to his fellow-students that he no longer deserves the trust placed in him.

A breach of the System may be flagrant and serious, or it may be extenuated by circumstances. It may need only mild corrective measures to help the violator obtain a finer conception of right and wrong; it may need strong measures. To enforce the System equitably the students have established the Honor Court. The Court is composed of twelve students and a chancellor all of whom are elected annually from the upper classes of the various colleges on the campus. Any student convicted by this Court has the right of appeal from its ruling to the Faculty Discipline Committee. A tribute to the efficiency of the Honor Court in its existence on the Florida campus is realized in the fact that, since its establishment, a surprisingly insignificant number of the Court's decisions have been altered upon appeal.

The penal purpose of the Honor Court should receive less stress, perhaps, than its educational purpose, which is its most important function. The responsibility of acquainting every member of the Student Body with the purpose, advantages, and principles of the Honor System is placed upon members of the Court. In line with this work, members of the Honor Court participate in the orientation program each year during Freshman Week. In addition to a series of explanatory talks at that time, special chapel programs are conducted by the Honor Court during the school year. Honor System talks are delivered in the high schools of the State upon request and at regularly scheduled times each spring, and radio programs are broadcast especially for the high schools from Station WRUF in Gainesville. In this way the Honor Court has endeavored to fulfill its responsibility to the men who undertake the problem of self-government and self-discipline at the University of Florida.

The parent of every prospective student should feel that it is his responsibility to stress the paramount importance of honorable conduct on the part of his son while the latter is in attendance at the University of Florida. Dishonest action brings sorrow both to parent and to student.

Because University students have proved worthy of the trust and responsibility involved in administering an Honor System, this feature of student government has become the greatest tradition at the University of Florida. It must be remembered that inasmuch as it is primarily a student responsibility, the future of the system rests with each new class of students entering the University. The University faculty and authorities pledge their support to the Honor System. Each student must support it, or, in failing to support it, contribute to the loss of this tradition.

THE UNIVERSITY COLLEGE

FACULTY

WINSTON WOODARD LITTLE, M.A., Dean of the University College

C-1. AMERICAN INSTITUTIONS

WILLIAM GRAVES CARLTON, M.A., J.D., Chairman and Professor in the University College

*GEORGE ROBERT BENTLEY, M.A., Assistant Professor in the University College

JAMES EDWARD CHACE, Ph.D., Associate Professor of Business Administration in the College of Business Administration

*MANNING JULIAN DAUER, Ph.D., Associate Professor of History and Political Science in the College of Arts and Sciences

*CLEMENT HAROLD DONOVAN, Ph.D., Associate Professor of Economics in the College of Business Administration

ROLAND BYERLY EUTSLER, Ph.D., Professor of Economics in the College of Business Administration

PAUL LAMONT HANNA, Ph.D., Associate Professor in the University College

*CLAUDE EDWARD HAWLEY, Ph.D., Professor in the University College

WILLIAM HARRY JOUBERT, M.A., Associate Professor of Economics in the College of Business Administration

ANGUS MCKENZIE LAIRD, M.A., Associate Professor of History and Political Science in the College of Arts and Sciences

JOHN MILLER MACLACHLAN, Ph.D., Head Professor of Sociology in the College of Arts and Sciences

REMBERT WALLACE PATRICK, Ph.D., Professor in the University College

JOSEPH EDWIN PRICE, B.A.E., Assistant Dean of Students

OLIVER BRUCE THOMASON, M.A., Assistant Professor of Sociology and Assistant Professor in the University College

JOHN N. WEBB, Ph.D., Professor in the University College

C-2. THE PHYSICAL SCIENCES

LEONARD WILLIAM GADDUM, Ph.D., Chairman and Professor in the University College

*RICHARD ARCHER EDWARDS, Ph.D., Associate Professor in the University College

*WINSTON WALLACE EHRMANN, Ph.D., Professor in the University College and Associate Professor of Sociology in the College of Arts and Sciences

*THEODORE SAMUEL GEORGE, Ph.D., Instructor in Mathematics in the College of Arts and Sciences

HAROLD LORRAINE KNOWLES, Ph.D., Associate Professor of Physics in the College of Arts and Sciences

L. VINCENT MEAD, M.A., Assistant Professor in the University College

DANIEL CRAMER SWANSON, Ph.D., Associate Professor of Physics in the College of Arts and Sciences

C-3. READING, SPEAKING, AND WRITING

FRESHMAN ENGLISH

JACOB HOOPER WISE, Ph.D., Chairman and Professor in the University College

WASHINGTON AUGUSTUS CLARK, JR., M.A., Assistant Professor of English in the College of Arts and Sciences

James Edmund Congleton, Ph.D., Associate Professor in the University College

Henry Philip Constans, M.A., Head Professor of Speech in the College of Arts and Sciences

*Norman E. Eliason, Ph.D., Professor of English in the College of Arts and Sciences

Lewis Francis Haines, Ph.D., Assistant Professor of English in the College of Arts and Sciences

Alton Chester Morris, Ph.D., Associate Professor of English in the College of Arts and Sciences

Charles Eugene Mounts, Ph.D., Assistant Professor of English in the College of Arts and Sciences

Albert Alexander Murphree, B.A., Assistant Professor of English in the College of Arts and Sciences

*Herman Everette Spivey, Ph.D., Associate Professor of English in the College of Arts and Sciences

*Thomas B. Stroup, Ph.D., Associate Professor of English in the College of Arts and Sciences

Roy Edward Tew, B.A.E., Assistant Professor of Speech in the College of Arts and Sciences

Biron H. Walker, M.A., Instructor in English in the College of Arts and Sciences

C-41. PRACTICAL LOGIC

William Harold Wilson, Ph.D., Chairman of C-41, Associate Dean of the College of Arts and Sciences

*George Robert Bentley, M.A., Associate Professor in the University College

Elmer Dumond Hinckley, Ph.D., Head Professor of Psychology in the College of Arts and Sciences

Winston Woodard Little, M.A., Dean of the University College

C-42. FUNDAMENTAL MATHEMATICS

Franklin Wesley Kokomoor, Ph.D., Chairman of C-42 and Professor of Mathematics in the College of Arts and Sciences

Lawton Walter Blanton, Jr., M.A.E., Instructor in Mathematics in the College of Arts and Sciences and Acting University Examiner

Uri Pearl Davis, M.A., Assistant Professor of Mathematics in the College of Arts and Sciences

Bernard Francis Dostal, M.A., Assistant Professor of Mathematics in the College of Arts and Sciences

*Theodore Samuel George, Ph.D., Instructor in Mathematics in the College of Arts and Sciences

Gaines Barrett Lang, Ph.D., Instructor in Mathematics in the College of Arts and Sciences

Samuel W. McInnis, M.A., Assistant Professor of Mathematics in the College of Arts and Sciences

Zareh Mecuerditch Pirenian, M.S., Associate Professor of Mathematics in the College of Arts and Sciences

*Edward Schumberg Quade, Ph.D., Associate Professor of Mathematics in the College of Arts and Sciences

C-5. THE HUMANITIES

James David Glunt, Ph.D., Chairman of C-5 and Professor of History and Political Science in the College of Arts and Sciences

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*On leave of absence.

Malcolm Brown, Ph.D., Associate Professor in the University College

*Frederick William Conner, Ph.D., Assistant Professor of English in the College of Arts and Sciences

*George Gillespie Fox, Ph.D., Associate Professor of English in the College of Arts and Sciences

Lewis F. Haines, Ph.D., Assistant Professor of English in the College of Arts and Sciences

Paul Lamont Hanna, Ph.D., Associate Professor in the University College

Claude Leon Murphree, B.A., F.A.G.O., University Organist and Assistant Professor in the University College

E. Lowe Pierce, Ph.D., Assistant Professor in the University College

Charles Archibald Robertson, M.A., Professor of English in the College of Arts and Sciences

John N. Webb, Ph.D., Professor in the University College

C-6. BIOLOGICAL SCIENCE

Charles Francis Byers, Ph.D., Chairman of C-6 and Professor of Biology in the College of Arts and Sciences

*Archie Fairly Carr, Ph.D., Associate Professor in the University College

Coleman J. Goin, M.S., Assistant Instructor in the University College

Horton Holcombe Hobbs, Ph.D., Associate Professor in the University College

Theodore Huntington Hubbell, Ph.D., Professor of Biology and Geology in the College of Arts and Sciences

Albert Middleton Laessle, Ph.D., Assistant Professor in the University College

James Speed Rogers, Ph.D., Head Professor of Biology and Geology in the College of Arts and Sciences

*Howard Keefer Wallace, Ph.D., Assistant Professor of Biology in the College of Arts and Sciences

INTRODUCTORY STATEMENT

In a reorganization at the University of Florida in 1935, all freshmen and sophomores were placed in one college. The University College administers all the work of the Lower Division which includes the pre-professional work for the Upper Division schools and colleges and a core program of basic education for all students. In 1944 the American Council on Education defined this program: "General education refers to those phases of nonspecialized and nonvocational education that should be the common denominator, so to speak, of educated persons. . . . the type of education which the majority of our people must have if they are to be good citizens, parents, and workers." During his freshman and sophomore years at the University, a student's time is about evenly divided between these objectives of general education and those of pre-professional or professional preparation.

While fully accepting its responsibility toward the professional training of men who remain four years or longer and earn degrees, the University of Florida as a state institution also accepts its civic responsibility to help those who spend only one or two years at the University. These students—more than two-thirds of all enrolled—are not "failures" because they do not continue and earn degrees, and they probably deserve more from the state university than an odd assortment of only "introductory courses." Consequently

*On leave of absence.

at the University of Florida a group of comprehensive courses have been worked out to give some unity and meaning to a beginner's program. These comprehensive courses that make up the core program are:

1. *American Institutions* (known hereafter as C-1)
2. *The Physical Sciences* (C-2)
3. *Freshman English:* Reading, Speaking, and Writing (C-3)
4. *Practical Logic:* Straight Thinking (C-41);
   Fundamental Mathematics (C-42)
5. *The Humanities* (C-5)
6. *Biological Science* (C-6)

GUIDANCE

If a freshman has definitely decided to study toward a certain profession, these comprehensive courses make up an essential part of his program (see programs that follow for the respective colleges). However, if he is still "undecided" he is not urged to "guess" on registration day about his life's work. His program may be made up largely from the comprehensives which help him direct his thinking toward a desirable professional objective. It also includes approved electives that may further enable him to explore interests and needs. The first program listed on the pages that follow is for the usual high school graduate who is a bit undecided about his professional objective and wishes to use at least a part of his first year of college study as a preparation for this decision.

Thus, since the purpose of general education is to replace fragmentation, our program absorbs much of the responsibility for guidance. Every subject or course of the University College program is designed to *guide* the student. During the time he is making tentative steps toward a profession by taking special subjects to test aptitudes, interests, and ability, he is also studying the several great areas of human understanding and achievement. The program is adjusted to the individual, but there must be a more substantial basis for adjustment than just his chance whim of the moment. The material of the comprehensive courses is selected and tested with *guidance* as a primary function. While, of necessity, we must look forward to distant goals, we are trying to present materials that are directly related to life experiences and which will immediately become a part of the student's thinking and guide him in making correct *next steps.* Thus the whole program—placement tests, progress reports, vocational aptitude tests, basic vocational materials, selected material in the comprehensive courses, student conferences, adjustments for individual differences, election privileges, and comprehensive examinations—all are parts of a plan designed to *guide* students. Specifically, however, a student is assigned to a comprehensive course chairman. This chairman or a member of his staff acts as the student's official advisor. Many of the Upper Division colleges and professional schools have special committees to help those students in the Lower Division who are working in major part in the special subject fields.

Guidance, then, is not attempted at one office by one individual with a small staff, but at more than a dozen places. The whole drive of the University College program is one of directing the thinking of the student. While the necessary correlation and unification is attempted at the University College Office, throughout the University College period students consult Upper Division deans and department head to discuss future work. During the last month of each school year these informal conferences are concluded by a scheduled formal conference at which each student fills out a pre-registration card for the coming year.

Every spring the University is privileged to give placement tests to all seniors in every high school of the state. Since many high schools are also trying to acquaint the student with the common body of knowledge so needed by all, their records along with the placement test results indicate the variation that should be made in the program followed by a student at the University. Additional placement tests, similar to the final comprehensive examinaions required in each of the areas mentioned above, are being worked out at the University to be used as a further aid in determining the pattern a freshman's program should take. A student who has had three or four years in any subject field listed above and whose standings on the placement tests indicate superior knowledge and understanding at that level may elect more specialized work in the subject field as hereafter indicated.

VETERANS

The Council and Senate of the University of Florida have decided not to attempt group prescription for all veterans but to consider each man as an individual readjusting into civilian life. The University believes that the standard educational program offered to the average high school graduate may not be desirable, in full, for every veteran. Intellectual maturity, experience, and ability may enable a veteran to elect to more specific ends and to move forward more rapidly.

(1) The placement tests will be the five tests of educational development as worked out by the Armed Forces Institute (college level).

(2) As a part of his registration procedure the veteran will report to the Veterans' Counselor of the University.

(3) However, after tests and advice the veteran will be free to elect any program he feels will meet his needs better than those hereafter listed for beginners just out of high school.

(4) Veterans in the Lower Division who have not earned the Associate of Arts Certificate, but who have 64 semester hours of college credit may enter any college of the Upper Division by permission of its dean.

THE ASSOCIATE OF ARTS CERTIFICATE

The Associate of Arts Certificate is awarded in recognition of the successful completion of two years of planned work. In specific detail, one must pass at least sixty-four semester hours including pre-professional work and the comprehensive courses that make up the core program.

PROGRAMS OF STUDY

NORMAL FRESHMAN PROGRAM

Freshman Year	Hours
1.—American Institutions	8
2.—The Physical Sciences	6
3.—Freshman English	8
4.—Logic and Mathematics	6
5.—Departmental Electives	2-6
Military Science; Physical Fitness	——
	30-34

Sophomore Year	Hours
1.—The Humanities	8
2.—Biological Science	6
3.—Departmental Electives	16-20
Military Science; Physical Fitness	——
	30-34

A student who has had three or four years of preparatory school study in any one of the subject-areas of the comprehensive courses and whose placement test grades indicate superior knowledge and understanding at that level may substitute an approved elective.

At least sixty academic hours plus Military Science are required to complete the Lower Division; additional approved electives taken during the first two years may reduce the number of hours required for an Upper Division degree.

AGRICULTURE

The program for freshmen and sophomores working for a degree in the College of Agriculture:

Freshman Year	Hours
1.—American Institutions	8
2.—Biological Science	6
3.—Biology and Botany Laboratories	6
4.—Freshman English	8
5.—Electives in Agriculture or C-2 (May be postponed until 2nd year)	6
Military Science; Physical Fitness	
	28-34

Sophomore Year	Hours
1.—Agricultural Chemistry	8
2.—Logic and Mathematics	6
3.—The Humanities	8
4.—Bty. 303, or Bly. 102, or Ps. 226	3
5—Electives in Agriculture or C-2	6-9
Military Science; Physical Fitness	
	31-34

At least sixty academic hours plus Military Science are required to complete the Lower Division; additional approved electives taken during the first two years may reduce the number of hours required for an Upper Division degree.

A student taking electives in Agriculture or C-2 the first year may carry during his second year additional electives.

Electives in Agriculture are: Ag. 301, Ag. 306*, Al. 211*, As. 201*, As. 306, Ay. 321*. Ay. 324*. Dy. 311*, Ey. 202*, Ey. 301, Fy. 313*, He. 201, He. 312, Py. 301*, Sls. 301, Sls. 302. limited to one course per department. Starred courses only may be elected during the freshman year. Students should consult the curriculum of the department in which they expect to major for suggestions as to courses to be elected. (See College of Agriculture in Upper Division section of catalog.)

Students intending to major in *Agricultural Chemistry* are required to take Cy. 101-102 instead of Acy. 125-126.

Students intending to major in *Agricultural Education* see page 95.

Forestry.—Students working for a degree in *Forestry* follow the program above with the following exceptions. For (5) in the Freshman Year substitute C-41 and C-42; in the Sophomore Year take either Cy. 101-102 or Acy. 125-126 for (1); take Fy. 220 and C-421 for (2); and Bty. 303, Cl. 223, Fy. 226 and Fy. 228 for (4) and (5).

ARCHITECTURE AND ALLIED ARTS

The program for freshmen and sophomores working for a degree in the School of Architecture and Allied Arts.

Basic Program

Freshman Year	Sophomore Year
1.—American Institutions	1.—The Humanities
*2.—The Physical Sciences	2.—Biological Science
3.—Freshman English	3.—Basic Mathematics
*4.—Logic and Mathematics	4.—Fundamentals of Architecture
5.—Fundamentals of Architecture	5.—Electives
Military Science; Physical Fitness	Military Science; Physical Fitness

*A student who has had three or more years of mathematics and science in preparatory school and whose standings on the placement tests indicate superior knowledge and understanding at these levels may substitute Chemistry or Physics for the Physical Sciences and Basic Mathematics for Logic and Fundamental Methematics. This choice permits during the sophomore year additional electives which may be chosen from advanced work in Architecture.

At least sixty academic hours plus Military Science are required to complete the Lower Division; additional approved electives taken during the first two years may reduce the number of hours required for an Upper Division degree.

Students working for the degree of *Bachelor of Science in Landscape Architecture* substitute Acy. 125-126, Agricultural Chemistry, for Ms. 105-106, Basic Mathematics.

Students working for the degree of *Bachelor of Fine Arts* or *Bachelor of Arts in Commercial Art* substitute Pg. 11A, Fundamentals of pictorial Art, for Ae. 11A, Fundamentals of Architecture, and take electives in place of Ms. 105-106, Basic Mathematics.

ARTS AND SCIENCES

A student who plans to earn a four year degree in the college of Arts and Sciences has the following basic program. The statements which follow show the choice of basic courses for various specializations.

Basic Program

Freshman Year	Sophomore Year
1.—American Institutions	1.—The Humanities
*2.—The Physical Sciences	2.—Biological Science
3.—Freshman English	3.—Basic courses for specialization (16-20 semester hours)
*4—Logic and Mathematics	Military Science; Physical Fitness
5.—Electives (2-6 semester hours)	
Military Science; Physical Fitness	

*A student who has had three or more years of mathematics and science in preparatory school and whose standings on the placement tests indicate superior knowledge and understanding at these levels may substitute Chemistry or Physics for the Physical Sciences and Basic Mathematics for Logic and Fundamental Mathematics.

At least sixty academic hours plus Military Science are required to complete the Lower Division; additional approved electives taken during the first two years may reduce the number of hours required for an Upper Division degree.

Bachelor of Arts and *Bachelor of Science.*—There are no specific electives to be taken during the freshman and sophomore years. However, it is impossible to earn a major in four semesters in some departments of the College of Arts and Sciences and it is therefore distinctly to the advantage of the student to include as elective during the first two years as much as he can of the contemplated major field or of the required foreign language.

Bachelor of Arts in Journalism.—It is strongly recommended that Jm. 213, Public Opinion; Jm. 214, Introduction to Journalism; Jm. 215, History of Journalism; and Jm. 216, Principles of Journalism, be taken as electives during the first two years.

Bachelor of Science in Chemistry.—The University College program for students planning to earn this degree should include Cy. 101-102 and 111-112, General Chemistry; Ms. 105-106, Basic Mathematics; Ms. 353-354, Differential and Integral Calculus; and Cy. 201-202 and 211-212, Analytical Chemistry. If the student is unable to complete these courses before entering the Upper Division, it will be necessary to take them in the Upper Division.

Combined Academic and Law Curricula.—The College of Arts and Sciences offers three different curricula in combination with Law. One of them leads to the degree of Bachelor of Arts, another to the degree of Bachelor of Arts in Journalism, and the third to the degree, Bachelor of Science. In order to complete one of these combined curricula in the shortest possible time, it is necessary that a student select as electives in his University College program courses which will form an integral part of his major in the College of Arts and Sciences.

Basic Two-Year Program for Pre-Medical or Pre-Dental Students

Freshman Year	Sophomore Year
1.—American Institutions	1.—The Humanities
2.—General Chemistry	2.—Organic Chemistry
3.—Freshman English	3.—General Physics
4.—Biological Science	4.—French or German
5.—General Animal Biology (Laboratory)	Military Science; Physical Fitness
Military Science; Physical Fitness	

The above will cover the minimum two-year pre-medical or pre-dental work prescribed by the American Medical Association or by the American Dental Association for its member schools. Since some medical schools require more, a student should write directly to the medical or dental school he is considering for a catalog and a statement of its pre-medical or pre-dental requirements.

School of Pharmacy.—A student working for a degree in *Pharmacy* should follow the Basic Program for Arts and Sciences including among his electives Cy. 101-102, General Chemistry; Phy. 223-224, Galenical Pharmacy; and Pgy. 221-222, Practical Pharmacognosy.

BUSINESS ADMINISTRATION

The program for students who are working for a Bachelor's degree directly or in combination with Law, in the College of Business Administration.

Freshman Year

Ist Semester	Hours	2nd Semester	Hours
1.—American Institutions	4	1.—American Institutions	4
*2.—The Physical Sciences	3	*2.—The Physical Sciences	3
3.—Freshman English	4	3.—Freshman English	4
*4.—Logic or Mathematics	3	*4.—Mathematics or Logic	3
5.—Accounting or Economics (may be postponed until 2nd year)	3	5.—Accounting or Economics (may be postponed until 2nd year)	3
Military Science; Physical Fitness		Military Science; Physical Fitness	
	14-17		14-17

Sophomore Year

Ist Semester	Hours	2nd Semester	Hours
1.—Accounting	3	1.—Accounting	3
2.—Economics	3	2.—Economics	3
3.—The Humanities	4	3.—The Humanities	4
4.—Biological Science	3	4.—Biological Science	3
5.—Statistics	4	5.—Elective	2-4
Military Science; Physical Fitness		Military Science; Physical Fitness	
	17		15-17

*A student who has had three or more years of mathematics and science in preparatory school and whose standings on the placement tests indicate superior knowledge and understanding at these levels may substitute Chemistry or Physics for the Physical Sciences and Basic Mathematics for Logic and Fundamental Mathematics.

At least sixty academic hours plus Military Science are required to complete the Lower Division; additional approved electives taken during the first two years may reduce the number of hours required for an Upper Division degree.

A student taking Accounting or Economics the first year may carry during the second year additional electives which may be chosen from advanced courses in Economics or Business Administration.

A student working for the degree in *Public Administration* must take Pcl. 241, Political Foundations of Modern Life, in his sophomore year.

COURSES IN ECONOMICS AND BUSINESS ADMINISTRATION

AVAILABLE TO STUDENTS IN THE UNIVERSITY COLLEGE [1]

The following courses in Economics and Business Administration may be taken by students in the University College: Es. 203, Elementary Statistics; Es. 205-206, Economic Foundations of Modern Life; Es. 208, Economic History of United States; Es. 209, Economic History of England; Bs. 211-212, Elementary Accounting; Bs. 314, Federal Taxes for Individuals; Bs. 221, Elementary Business Finance; Bs. 232, Merchandising Organization and Practice; Bs. 241, Business Organization and Practice; Es. 246, The Consumption of Wealth; and Es. 282, Utilization of Natural Resources.

Other related courses available to students in the University College are BEn. 81, Introductory Typewriting; BEn. 91, Introductory Shorthand; BEn. 94, Stenography; and BEn. 98, Office Organization and Practice.

EDUCATION

The program for freshmen and sophomores working for a degree in the College of Education. The statements which follow indicate variations for major fields of concentration.

[1] It is anticipated that some students who do not plan a four-year program will elect many of these courses. Also, some students not headed for the College of Business Administration may wish to elect one or more of them for some specific object.

Basic Program

Freshman Year	Sophomore Year
1.—American Institutions	1.—The Humanities
*2.—The Physical Sciences	2.—Biological Science
3.—Freshman English	3.—Basic courses for specialization (16-20 semester hours)
*4.—Logic and Mathematics	Military Science; Physical Fitness
5.—Electives (2-6 semester hours)	
Military Science; Physical Fitness	

*A student who has had three or more years of mathematics and science in preparatory school and whose standings on the placement tests indicate superior knowledge and understanding at these levels may substitute Chemistry or Physics for the Physical Sciences and Basic Mathematics for Logic and Fundamental Mathematics.

At least sixty academic hours plus Military Science are required to complete the Lower Division; additional approved electives taken during the first two years may reduce the number of hours required for an Upper Division degree.

With the exception of those specializing in the fields listed below, students in Education should include during the first two years En. 241, HPl. 387, HPl. 131 or 132 or 231 or 232, Sy. 241, and Psy. 201. If En. 241 and HPl. 387 are taken during the first year, the student may carry in the second year additional electives from the teaching field or from Education.

A student majoring in *Health and Physical Education* should take during the first two years HPl. 131-132, HPl. 231-232, and sufficient electives in Education to meet Lower Division requirements. If HPl. 131-132 are taken in the first year, there is room in the program the second year for additional electives in the teaching field or in Education.

A student majoring in *Industrial Arts Education* should take during the first two years In. 111-112, HPl. 131 or 132 or 231 or 232, In. 211-212, En. 241, HPl. 387, En. 305 and En. 385. If In. 111-112 are taken the first year, the student may, during the sophomore year, take additional electives in Education.

A student majoring in *Business Education* should take during the first two years BEn. 81 and 91, Es. 205-206, Bs. 211-212, En. 241, and En. 386. If BEn. 81 and 91 are taken during the first year, the student may take in the second year additional electives in Education.

Program for Students Majoring in Agricultural Education

Freshman Year	Hours	Sophomore Year	Hours
1.—American Institutions	8	1.—Agricultural Chemistry	8
2.—Biological Science	6	2.—Logic and Mathematics	6
3.—Biology and Botany Laboratories	6	3.—The Humanities	8
4.—Freshman English	8	4.—Ay. 321 and Bty. 304	6
5.—Al. 211 and Ag. 306	6	5.—En. 303 and En. 306	6
Military Science; Physical Fitness		Military Science; Physical Fitness	
	34		34

At least sixty academic hours plus Military Science are required to complete the Lower Division; additional approved electives taken during the first two years may reduce the number of hours required for an Upper Division degree.

ENGINEERING

The program for freshmen and sophomores working for a degree in the College of Engineering.

Freshman Year	Sophomore Year
1.—American Institutions	1.—The Humanities
*2.—C-2 or Cy. 101-102	2.—Biological Science (elective except for students in Public Health Engineering)
3.—Freshman English	3.—Ms. 353-354
*4.—C-41 and C-42 or Ms. 105-106	4.—Ps. 205-206, 207-208
**5.—Ml. 181, Elective (from list below)	5.—Electives (departmental electives as listed below)
Military Science; Physical Fitness	Military Science; Physical Fitness

*Both Cy. 101-102 and Ms. 105-106 are required, but students who have not had four years of mathematics and four years of science in their high school preparatory work are urged to take C-2 and C-41 and C-42 first.

**Students desiring to graduate in minimum time in Engineering must complete their course in engineering drawing during their first year in residence. This will require equipment costing approximately thirty dollars.

Departmental prerequisites are as follows: Chemical Engineering, Ml. 182, Cy. 201-202, Cg. 345; Civil Engineering (General), Ml. 182, Ig. 365, Cl. 223-226; Civil Engineering (Public Health Option), Bly. 102, Cy. 204, Cy. 262; Electrical Engineering, Ml. 182, 282, Ig. 365; Industrial Engineering, Ml. 182, 282, Ig. 365; Mechanical Engineering, Ml. 182, 281-282.

The student should make every effort to complete these courses before entering the Upper Division, although he may be enrolled in the Upper Division "on probation" until he completes them.

Students whose records in the University College do not indicate that they are qualified to take the professional courses in Engineering will not be admitted to the Upper Division of the College of Engineering.

LAW

Applicants for admission to the College of Law must have received a degree in arts or science in a college or university of approved standing, or must be eligible for a degree in a combined course in the University of Florida, upon the completion of one year of work in the College of Law. The University also offers this combined course with the Florida State College for Women.

For the duration of the war, applicants will be admitted who have completed two years of academic college work meeting the standards of the Association of American Law Schools.

In addition to other requirements, all applicants for admission to the College of Law, whose pre-law training has not been received at this institution, must satisfactorily pass scholastic and legal aptitude tests given by the Board of University Examiners, unless from the nature of their previous record they are excused by the law faculty.

TWO-YEAR PROGRAMS

Some freshmen know on entering that they have only one or two years for University study. Usually they want knowledge and skills that appear to them to have immediate practical value. These terminal program students are permitted to elect the subjects they need, provided such courses have no prerequisites. Several of the colleges are planing new courses to meet possible demands. These students on completing seventy-two hours of a balanced program will be granted an Associate of Arts or an Associate of Applied Science Certificate. The individual programs are worked out with the Dean of the University College.

UNIVERSITY COLLEGE REGULATIONS

REGISTRATION

The requirements for admission are found in the first part of this bulletin. Registration procedure will be outlined in detail in the program supplied the student at his first meeting.

No student is properly registered until all fees have been paid. Fees are paid at the Business Office, Rooms 102-4, Language Hall.

To drop a course from his schedule, to add a course, or to change a section, a student should report to the Dean of the University College. Final dates for such changes will be found in the University Calendar.

Students should notice carefully the registration dates listed in the University Calendar. Late registration fees will be charged all students registering at any time after the regular registration period.

ATTENDANCE

If any student accumulates absences or fails to do class work to the extent that further enrollment in the class appears to be of little value to him and detrimental to the best interest of the class, it shall be the duty of the instructor to warn such student in writing that further absences or failure to do class work will cause him to be dropped from the course with a failing grade. Where possible this warning will be delivered personally; otherwise, it will be mailed to the student's last University address by the Registrar. Instructors shall immediately report all such warnings to the Course Chairman or Department Head.

Should any absences or failure to do class work be incurred after this warning, the student will be dropped from the course and be given a failing grade. Should he be dropped from more than one course his case will be considered by the Committee on Student Progress who may rule that he be dropped from the University and his record marked "Dropped for Non-Attendance" or "Dropped for Unsatisfactory Work" as the case may be.

PROGRESS TESTS AND REPORTS

Progress Reports to indicate the progress a student seems to be making in his work will be made each semester by the Board of Examiners and the instructors. While the results of progress tests given by the Board in all the basic comprehensive courses are diagnostic, used for adjustment and guidance, they are added numerically to the results of the final comprehensive exams to determine a student's standing in any course, actual experience shows that students who fail to make satisfactory standings on progress tests also fail to pass the comprehensive examinations. In fact this agreement is so close that progress tests are sometimes taken to establish a student's standing or credits.

The total Progress Report for each of the basic comprehensive courses includes test results and instructors' judgments and indicates progress as "satisfactory" or "unsatisfactory" as judged on the basis of (1) class attendance, (2) apparent effort, and (3) test results.

COMPREHENSIVE EXAMINATIONS

The comprehensive course examinations (of which the student must successfully pass six or more to complete the program of the University College) are administered by the Board of University Examiners and are given in January, May, and August of each year. A student must be familiar with the work of the various courses and be able to think in the several fields in a comprehensive way in order to pass these examinations. A total of six hours, divided into two equal periods, will be required for each examination covering a full year course. Standings on the comprehensive examinations are issued by the Board of Examiners and are not subject to change by any other agency.

APPLICATIONS FOR COMPREHENSIVE EXAMINATIONS

University College students who are enrolled in a course at the time the examination is given need not make application for it. University College students who are not enrolled in a course at the time an examination is given and who wish to take the comprehensive examination must apply in writing to the Board of Examiners for permission prior to the last date set for filing such applications. Applications will not be accepted from students registered in the colleges of the Upper Division. Before the application is accepted the applicant will be required to furnish the Board of Examiners with proof that this privilege

has not been used to avoid the payment of usual University fees. Applications will be accepted only for those examinations which are administered by the Board of Examiners. The Board of Examiners is the only agency authorized to give University College students examinations by application.

Should a student fail a comprehensive course examination, he may qualify to repeat the examination by repeating the course or by further independent study. Evidence of additional preparation must be submitted to the Board of Examiners with the formal application to repeat the examination.

WITHDRAWAL FROM THE UNIVERSITY

A student wishing to withdraw from the University during any semester or at the end of the first semester should report to the Office of the Registrar and secure a blank to be executed for this purpose. Failure to comply with this requirement makes a student liable for dismissal for non-attendance or for failure in studies, and subject to payment of failure fees when and if he re-enrolls in the University.

FAILURE IN STUDIES

The Committee on Student Progress will consider the record of each student in the University College at the end of each session, and will report to the Administrative Board of the University College the names of those students whose further attendance at the University appears to be of doubtful value. The students concerned may be called before the Committee and the facts of each case will be thoroughly considered before final action is taken. Failure to attend classes, to take progress tests, or to take the comprehensive examination at the end of a course may be interpreted as evidence of unsatisfactory progress. If further enrollment at the University appears to be of little value to a student, the Committee may advise the parent to withdraw the student.

COLLEGE OF AGRICULTURE

FACULTY

H. Harold Hume, M.S.A., D.Sc. (Clemson), Provost for Agriculture and Dean. College of Agriculture

Wilbur Leonidas Floyd, M.S., Assistant Dean and Head Professor of Horticulture, Emeritus

AGRICULTURAL CHEMISTRY

Alvin Percy Black, Ph.D. (Iowa), Professor of Chemistry

George Washington Muhleman, Ph.D. (Univ. of Geneva, Switzerland), Acting Assistant Professor of Agricultural Chemistry.

AGRICULTURAL ECONOMICS

Clarence Vernon Noble, Ph.D. (Cornell), Head Professor of Agricultural Economics
Henry Glenn Hamilton, Ph.D. (Cornell), Professor of Marketing
John R. Greenman, B.S.A., Professor of Agricultural Economics

AGRICULTURAL EDUCATION

Edward Walter Garris, Ph.D. (Peabody), Professor of Agricultural Education

AGRICULTURAL ENGINEERING

Frazier Rogers, M.S.A., Head Professor of Agricultural Engineering

AGRONOMY

Pettus Holmes Senn, Ph.D. (Wisconsin), Head Professor of Agronomy

ANIMAL INDUSTRY

Arthur Liston Shealy, D.V.M. (McKillip), Head Professor of Animal Husbandry
Raymond Brown Becker, Ph.D. (Minnesota), Professor of Dairy Husbandry and Animal Nutrition
Mark Wirth Emmel, D.V.M. (Iowa State College), Professor of Veterinary Science
Everett Lincoln Fouts, Ph.D. (Iowa State College), Professor of Dairy Manufactures
Raymond Sylvester Glasscock, Ph.D. (Illinois), Professor of Animal Husbandry
Norman Ripley Mehrhof, M.S., Professor of Poultry Husbandry
Nathan Willard Sanborn, M.D. (City of New York), Professor of Poultry Husbandry (Special Status)
Claude Houston Willoughby, M.A., Professor of Animal Husbandry
P. T. Dix Arnold, M.S., Assistant Professor of Dairy Husbandry
Sidney Paul Marshall, M.S., Assistant Professor of Animal Nutrition
*James Edward Pace, B.S., Assistant Professor of Animal Husbandry

BOTANY

William B. Tisdale, Ph.D. (Wisconsin), Head Professor of Botany
William Richard Carroll, Ph.D. (Minnesota), Professor of Bateriology
Madison Derrell Cody, M.A., Professor of Botany
Geo. F. Weber, Ph.D. (Wisconsin), Professor of Plant Pathology

*Leave of absence.

ENTOMOLOGY

John Thomas Creighton, Ph.D. (Ohio State), Head Professor of Entomology
Archie Newton Tissot, Ph.D. (Ohio State), Associate Professor of Entomology
Homer Hixson, Ph.D. (Iowa), Assistant Professor of Entomology

HORTICULTURE

Herbert Snow Wolfe, Ph.D. (Chicago), Head Professor of Horticulture
Charles Elliott Abbott, M.S., Professor of Horticulture
John Vertrees Watkins, M.S.A., Assistant Professor of Horticulture

SOILS

Fredrick Burean Smith, Ph.D. (Iowa State College), Head Professor of Soils
George Daniel Thornton, M.S.A., Assistant Professor of Soils
Joseph Russell Henderson, M.S.A., Assistant Professor of Soils

ORGANIZATION

The College of Agriculture is composed of three divisions:

1. Instruction Division (the College proper)
2. Research Division (Experiment Station)
3. Agricultural Extension Service

THE COLLEGE

The aim of the College is to afford young men the best possible opportunity for gaining technical knowledge and training in the art and science of Agriculture, thus enabling graduates to become effective producing agriculturists, leaders in educational work, research workers, etc.

LIBRARIES

The University Library contains many works on agriculture and horticulture. Each department has a small collection of well selected volumes which are always accessible. In the Experiment Station Library are bulletins from the United States Department of Agriculture and from the experiment stations of the world, all fully indexed. These sources of materials are in addition to the agricultural literature in the General Library.

REQUIREMENTS FOR ADMISSION TO THE COLLEGE OF AGRICULTURE

To enter the College of Agriculture students are required to present a certificate of graduation from the University College, and have met the other special requirements outlined for students interested in agriculture registered in the University College.

Equivalent credits from other institutions will be accepted in lieu of the University College certificate.

DEGREES AND CURRICULA

Students entering the College of Agriculture may take a major in the curriculum in General Agriculture or in any one of the following departments and divisions:

Agricultural Chemistry
Agricultural Economics
Agricultural Education
Agricultural Engineering
Agronomy
Animal Industry, including the departments of
(a) Animal Production
(b) Dairy Husbandry
(c) Dairy Manufacture
(d) Poultry Husbandry
Botany, including the departments of
(a) Bacteriology
(b) Botany
(c) Plant Pathology
Entomology
Horticulture
Soils

A minimum of 20 semester hours is required for a major in any department.

The head of the department in which a student majors (or his appointee) will act as the student's adviser, assist the student in arranging his course of study, and make necessary recommendations to the Dean. The student's courses for each semester are subject to the approval of the Dean and the department head.

If a student anticipates pursuing graduate work, he will find it helpful to elect as many basic courses as possible, such as chemistry, biology, mathematics, botany, physics, economics, and a language. On the other hand, if a student anticipates going into applied agriculture: farming, county agent work, farm superintendency, etc., he will find it profitable to elect as much technical agriculture as possible in departments related to his major work.

CREDIT FOR PRACTICAL WORK

By previous arrangement with the head of the department and the Dean, students may, during their course of study, do practical work under competent supervision in any recognized agricultural pursuit, and upon returning to the college and rendering a satisfactory written report showing faithful service, will be entitled to one credit for each month of such work. Such credits may not total more than three.

Practical work is especially important for students who have no farm experience.

Even though they cannot procure employment under such competent supervision as will give college credit, they should secure work along the line in which they are majoring. Faculty members will assist as much as possible in securing such vacation employment.

GRADUATION WITH HONORS

To graduate *with honors* a student must have an honor point average of 3.3 or above for all agricultural subjects taken in the University College and all courses completed in the Upper Division, and be recommended by the Dean.

To graduate *with high honors* a student must have an honor point average of 3.5 or above for all agricultural subjects taken in the University College and all courses completed in the Upper Division, be in the highest 5 per cent of the class, and be recommended by the head of the department and by the Dean.

CURRICULA

AGRICULTURAL CHEMISTRY

Junior Year

Courses	First Semester	Credits	Courses	Second Semester	Credits
Cy. 201	—Analytical Chemistry	4	Cy. 202	—Analytical Chemistry	4
Cy. 301	—Organic Chemistry	4	Cy. 302	—Organic Chemistry	4
CMs. 23	—Basic Mathematics	4	CMs. 24	—Basic Mathematics	4
Ps. 101	—Elementary Physics	3	Ps. 102	—Elementary Physics	3
Ps. 103	—Laboratory for Physics 101	2	Ps. 104	—Laboratory for Physics 102	2
		17			17

Senior Year

Acy. 431	—Agricultural Analysis	4	Acy. 432	—Agricultural Analysis	4
Al. 311	—Elementary Nutrition	4	Bcy. 301	—General Bacteriology	4
Cy. 401	—Physical Chemistry	4	Cy. 402	—Physical Chemistry	4
Cy. 481	—Chemical Literature	½	Cy. 482	—Chemical Literature	½
Sls. 301	—Soils	3		Electives	5
Sls. 491	—Soils Seminar	1			
		16½			17½

AGRICULTURAL ECONOMICS

In addition to a broad training in the fundamentals of agriculture, the curriculum in agricultural economics is designed to provide the student with an understanding of the economic principles involved in the production and marketing of farm products and in the major State and Federal government programs relating to agriculture. The curriculum is intended to prepare students to enter private or government work as farmers, farm managers, marketing specialists, price analysts, agricultural statisticians, agricultural credit specialists (including work with the Farm Credit Administration), and general agricultural economists. Students who may be interested in preparing themselves for U. S. Civil Service Examinations are advised that in general a minimum of 24 semester hours in agricultural economics are required for eligibility to the examination for Junior Agricultural Economist.

Junior Year

*As. 201	—Agricultural Economics	3	**As. 306	—Farm Management	3
**As. 303	—Farm Records	3	**As. 308	—Marketing	3
	†Options	3-6		†Options	3-6
	‡Electives	5-8		‡Electives	5-8
		17			17

Senior Year

**As. 405	—Agricultural Prices	3	**As. 410	—Agricultural Statistics	3
**As. 409	—Cooperative Marketing	3		†Options	3-6
	†Options	3-6		‡Electives	8-11
	‡Electives	5-8			17
		17			

*Required, if not completed in Sophomore year.

**Other courses in agricultural economics may be substituted.

†A minimum of 18 hours of technical agricultural subjects is recommended from the following courses: Ag. 301, Ag. 303 or Ag. 306; Al. 211 or Al. 309; Ay. 324; Ey. 301 or Pt. 321; He. 201, He 312 or He. 315; Sls. 301; Fy. 313.

‡A minimum of 15 hours of the electives must be taken in the College of Agriculture or the School of Forestry. The remaining electives may be chosen in agricultural or non-agricultural subjects. The non-agricultural subjects especially recommended are mathematics, accounting, economics and public speaking.

AGRICULTURAL EDUCATION

Junior Year

Courses		First Semester	Credits	Courses		Second Semester	Credits
Ag.	303	—Farm Shop	3	As.	306	—Farm Management	3
Dy.	311	—Principles of Dairying	4	Ag.	407	—Farm Shop Power Equip.	3
Sls.	301	—Soils	3	HPl.	387	—Health Education	3
		Electives in Agriculture	2	He.	312	—Vegetable Gardening	3
		Electives in Education	3	He.	316	—Citrus Culture	3
		Electives	2			Electives	2
			17				17

Senior Year

En.	409	—Supervised Teaching in Vocational Agriculture	3	As.	308	—Marketing	3
En.	411	—Special Methods in Vocational Agriculture	2	En.	410	—Supervised Teaching in Vocational Agriculture	3
He.	429	—Ornamental Horticulture	3	En.	412	—Special Methods in Vocational Agriculture	2
Py.	415	—Poultry Management	3	Ey.	314	—Principles of Economic Entomology	4
Vy.	401	—Livestock Diseases and Farm Sanitation	2	Sls.	302	—Soil Fertility	3
		Electives in Agriculture	2			Electives	2
		Electives	2				
			17				17

AGRICULTURAL ENGINEERING

Junior Year

Ag.	301	—Drainage and Irrigation	3	Ag.	302	—Farm Motors	3
Ag.	303	—Farm Shop	3	Ag.	306	—Farm Machinery	3
Py.	301	—Fundamentals in Poultry Production	3	Al.	211	—Principles of Animal Husbandry	3
Sls.	301	—Soils	3			Approved Electives	8
		Approved Electives	5				
			17				17

Senior Year

Ag.	401	—Farm Buildings	2	As.	306	—Farm Management	3
Ag.	403	—Agricultural Engineering Investigations	2	Ag.	404	—Agricultural Engineering Investigations	2
Ay.	321	—General Field Crops	3	Ag.	408	—Soil and Water Conservation	3
Ey.	301	—Introduction to Entomology	4			Approved Electives	9
He.	315	—Citrus Culture	3				
		Approved Electives	3				
			17				17

AGRONOMY

The curriculum in Agronomy is designed to give a broad training in the fundamentals of general agriculture with particular emphasis on field and forage crop production, genetics and plant breeding.

Junior Year

Courses		First Semester	Credits	Courses		Second Semester	Credits
Ay.	321	—General Field Crops	3	Ay.	324	—Forage and Cover Crops	3
Ay.	329	—Applied Genetics	3	Al.	211	—Prin. of Animal Husbandry	3
Ay.	331	—Lab. Probs. in Genetics	2	Sls.	302	—Soil Fertility	3
He.	201	—Principles of Horticulture	3			Approved Electives	8
Sls.	301	—Soils	3				
		Approved Electives	3				
			17				17

Senior Year

Bty.	311	—Plant Physiology	4	As.	308	—Marketing	3
Ey.	301	—Introduction to Entomology	4	Ag.	306	—Farm Machinery	3
Pt.	321	—Plant Pathology	4	Ay.	422	—Plant Breeding	3
		Approved Electives	3			Electives in Agronomy	3
		Electives in Agronomy	3			Approved Electives	4
			18				16

GENERAL AGRICULTURE

The curriculum in general agriculture is designed to give a broad fundamental training in agriculture and is especially recommended for students preparing to go into agricultural extension and similar work.

Junior Year

Courses		First Semester	Credits	Courses		Second Semester	Credits
Ag.	301	—Drainage and Irrigation	3	As.	306	—Farm Management	3
Ay.	321	—General Field Crops	3	As.	413	—Agricultural Policy	3
Al.	311	—Elementary Nutrition	4	Ay.	324	—Forage and Cover Crops	3
He.	315	—Citrus Culture	3	Al.	211	—Principles of Animal Husbandry	3
Sls.	301	—Soils	3	He.	312	—Vegetable Gardening	3
		Electives	3	Sls.	302	—Soil Fertility	3
			19				18

Senior Year

Ey.	301	—Introduction to Entomology	4	As.	308	—Marketing	3
Fy.	313	—Farm Forestry	3	Ag.	306	—Farm Machinery	3
Pt.	321	—Plant Pathology	4	Ay.	400	—Agric. Extension Methods	3
Py.	301	—Fundamentals in Poultry Production	3	Al.	312	—Feeds and Feeding	4
				Sch.	241	—Effective Speaking	3
			14				16

ANIMAL INDUSTRY

(a) Major in Animal Production

Junior Year

Al.	309	—Fundamentals in Animal Husbandry	3	As.	306	—Farm Management	3
Al.	311	—Elementary Nutrition	4	Ay.	324	—Forage and Cover Crops	3
Bcy.	301	—General Bacteriology	4	Al.	312	—Feeds and Feeding	4
Dy.	311	—Principles of Dairying	4	Al.	314	—Livestock Judging	3
Vy.	301	—Veterinary Anatomy and Physiology	3	Al.	322	—Animal Breeding	2
						Electives	2
			18				17

Senior Year

Ay.	329	—Applied Genetics	3	Al.	411	—Beef Production	2
Al.	413	—Swine Production	3	Al.	420	—Marketing of Livestock	3
Al.	415	—Meats	3	Al.	421	—Seminar	1
Al.	421	—Seminar	1			Electives	10
Sls.	301	—Soils	3				
		Electives	4				
			17				16

(b) Major in Dairy Husbandry

Junior Year

Al.	311	—Elementary Nutrition	4	As.	306	—Farm Management	3
Bcy.	301	—General Bacteriology	4	Al.	312	—Feeds and Feeding	4
Dy.	311	—Principles of Dairying	4	Al.	314	—Livestock Judging	3
Vy.	301	—Veterinary Anatomy and Physiology	3	Bcy.	402	—Dairy Bacteriology	4
		Electives	3			Electives	3
			18				17

Senior Year

Ay.	329	—Applied Genetics	3	Ay.	324	—Forage and Cover Crops	3
Ay.	331	—Laboratory Problems in Genetics	2	Al.	421	—Seminar	1
Al.	421	—Seminar	1	Dy.	318	—Grading and Judging Dairy Products	2
Dy.	413	—Market Milk and Milk Plant Products	4	Dy.	412	—Milk Production	3
Sls.	301	—Soils	3			Electives	7
		Electives	4				
			17				16

(c) Major in Dairy Manufactures

Junior Year

Courses	First Semester	Credits	Courses	Second Semester	Credits
Acy. 203	—Analytical Chemistry	3	Acy. 204	—Analytical Chemistry	3
Al. 311	—Elementary Nutrition	4	As. 308	—Marketing	3
Bcy. 301	—General Bacteriology	4	Bs. 311	—Accounting Principles	3
Dy. 311	—Principles of Dairying	4	Dy. 318	—Grading and Judging Dairy Products	2
Dy. 316	—Condensed and Dry Milk	3		Approved Electives	5
		18			16

Senior Year

Ag. 406	—Dairy Engineering	3	Al. 421	—Seminar	1
Al. 421	—Seminar	1	Bcy. 402	—Dairy Bacteriology	4
Dy. 413	—Market Milk and Milk Plant Products	4	Dy. 414	—Manufacture of Butter and Cheese	3
Dy. 415	—Ice Cream Manufacture	3	Dy. 416	—Dairy Technology	5
	Approved Electives	6		Approved Electives	4
		17			17

(d) Major in Poultry Husbandry

Junior Year

As. 201	—Agricultural Economics	3	As. 306	—Farm Management	3
Ay. 329	—Applied Genetics	3	Al. 312	—Feeds and Feeding	4
Ay. 331	—Laboratory Problems in Genetics	2	Py. 312	—Advanced Incubation, Brooding and Rearing	3
Al. 311	—Elementary Nutrition	4		Electives	7
	Electives	5			
		17			17

Senior Year

Ag. 401	—Farm Buildings	2	Al. 421	—Seminar	1
Al. 421	—Seminar	1	Py. 416	—Poultry Management	3
Py. 415	—Poultry Management	3	Py. 417	—Marketing Poultry Products	3
Py. 427	—Advanced Poultry Judging and Poultry Breeding	3	Vy. 402	—Poultry Diseases	2
	Electives	8		Electives	8
		17			17

Students majoring in Poultry Husbandry must meet the above requirements. It is suggested that Py. 429-430 be taken in addition to the required courses.

BOTANY

(a) Major in Bacteriology

Junior Year

Courses	First Semester	Credits	Courses	Second Semester	Credits
Acy. 203	—Analytical Chemistry	3	Acy. 204	—Analytical Chemistry	3
Bcy. 301	—General Bacteriology	4	Bcy. 302	—Agricultural Bacteriology	3
Bty. 311	—Plant Physiology	4	Bcy. 304	—Pathogenic Bacteriology	4
Gn. 33	—First Year German	3	Bcy. 306	—Bacteriology of Foods	4
Pt. 321	—Plant Pathology	4	Gn. 34	—First Year German	3
		18			17

Senior Year

Bcy. 411	—Principles and Practices of Immunology	4	Bcy. 402	—Dairy Bacteriology	4
Bty. 555	—Seminar	1	Bcy. 412	—Industrial Bacteriology	4
Cy. 215	—Water and Sewage	3	Bty. 308	—Taxonomy	4
He. 317	—Plant Propagation	3	Bty. 555	—Seminar	1
Sls. 301	—Soils	3	Vy. 402	—Poultry Diseases	2
	Electives	2		Electives	2
		16			17

(b) Major in Botany

Junior Year

Courses		First Semester	Credits	Courses		Second Semester	Credits
Bcy.	301	—General Bacteriology	4	Bty.	308	—Taxonomy	4
Bty.	311	—Plant Physiology	4	Bty.	401	—Ecology	4
Cy.	262	—Organic Chemistry	5			Electives	8
Pt.	321	—Plant Pathology	4				
			17				16

Senior Year

Ay.	329	—Applied Genetics	3	Ay.	422	—Plant Breeding	3
Bty.	431	—Plant Histology	4	Bty.	432	—Plant Anatomy	4
Bty.	555	—Seminar	1	Bty.	555	—Seminar	1
Ey.	301	—Introduction to Entomology	4	Pt.	434	—Mycology	3
He.	317	—Plant Propagation	3			Electives	6
Sls.	301	—Soils	3				
			18				17

(c) Major in Plant Pathology

Junior Year

Ay.	329	—Applied Genetics	3	He.	317	—Plant Propagation	3
Bcy.	301	—General Bacteriology	4	Bty.	308	—Taxonomy	4
Bty.	311	—Plant Physiology	4	Pt.	322	—Vegetable Diseases	3
Pt.	321	—Plant Pathology	3			Electives	6
		Electives	4				
			18				16

Senior Year

Bty.	431	—Plant Histology	4	Ay.	422	—Plant Breeding	3
Bty.	555	—Seminar	1	Bty.	555	—Seminar	1
Cy.	262	—Organic Chemistry	5	Pt.	423	—Fruit Diseases	3
Pt.	424	—Field Crop Diseases	3	Pt.	434	—Mycology	3
		Electives	2			Electives	6
			18				16

ENTOMOLOGY

The curriculum for this department is flexible. Students will be permitted to make alterations which are deemed of value in their specialized type of training. Students should confer with the head of the department. The proper selection of electives will enable a student to train for one of the following phases of the profession: 1. Insects affecting man and animals, 2. Industrial entomology, 3. Insects affecting fruit, vegetable, and field crops. 4. Legal phase of entomology or plant quarantine and inspection, 5. Forest entomology and conservation, 6. Research phase of entomology and graduate work, 7. Commercial entomology and pest control.

Copies of the suggested special curricula for the aforementioned fields of specialization may be obtained from the head of the department. Ey. 201 (Man and Insects) or Ey. 301 (Introduction to Entomology) are prerequisites or corequisites for all other entomology courses except Ey. 314.

Electives in non-agricultural subjects must not exceed 15 semester hours.

Junior Year

Courses		First Semester	Credits	Courses		Second Semester	Credits
Ey.	301	—Introduction to Entomology	4	Ag.	306	—Farm Machinery	3
Ey.	311	—Seminar	1	Ey.	304	—Advanced Entomology	5
Ey.	405	—Insect Control	3	Ey.	311	—Seminar	1
He.	201	—Principles of Horticulture	3	Ey.	432	—Florida Fruit and Vegetable Insects	3
		Electives	6			Electives	5
			17				17

Senior Year

Courses	First Semester	Credits	Courses	Second Semester	Credits
Ay. 329	—Applied Genetics	3	Ey. 408	—Insect Morphology	5
Ey. 420	—Medical and Veterinary Entomology	3	Ey. 441	—Plant Quarantine, Inspection and Control	3
Sls. 301	—Soils	3		Electives	9
	Electives	8			
		17			17

HORTICULTURE

The Horticulture curriculum is a broad one, designed to give the student a basic training in the field of horticulture, with ample choice of electives in related fields. Opportunity is afforded in the senior year for specialization in any of the following fields: (1) citrus culture, (2) olericulture, (3) floriculture, (4) ornamental horticulture, (5) tropical horticulture. Students should consult with the head of the department concerning their field of special interest and recommended electives for strengthening it.

Junior Year

Courses	First Semester	Credits	Courses	Second Semester	Credits
Bty. 311	—Plant Physiology	4	As. 408	—Marketing Fruits and Vegetables	3
He. 317	—Plant Propagation	3	He. 312	—Vegetable Gardening	3
Pt. 321	—Plant Pathology	4	He. 314	—Principles of Fruit Production	3
Sls. 301	—Soils	3	Sls. 302	—Soil Fertility	3
	Approved Electives	3		Approved Electives	6
		17			18

Senior Year

Ag. 301	—Irrigation and Drainage	3	Ay. 422	—Plant Breeding	3
Ey. 301	—Introduction to Entomology	4		Approved Courses in Horticulture	6
	Approved Courses in Horticulture	6		Approved Electives	6
	Approved Electives	6			
		19			15

SOILS

The curriculum in soils is designed to give the student a broad training in the fundamentals of agriculture with particular emphasis on crop production and soil management. Sufficient elective hours are provided so that in addition to the training in soils, any student may specialize in some closely allied line of work such as agricultural economics, farm management, agricultural chemistry, horticulture or agricultural engineering. Carefully selected groups of courses are outlined which offer opportunity for specialization in Soil Chemistry, Soil Microbiology, Soil Conservation and Management, and Soil Surveying. Students should consult the head of the department for approval of electives in the field of specialization. Students intending to major in Soil Chemistry should elect Ps. 226, those intending to major in Soil Microbiology should elect Bly. 102, those intending to major in Soil Conservation and Management should elect Bty. 303, in the Sophomore year.

Junior Year

Courses	First Semester	Hours	Courses	Second Semester	Hours
Acy. 203	—Analytical Chemistry	3	Acy. 204	—Analytical Chemistry	3
Sls. 301	—Soils	3	Sls. 302	—Soil Fertility	3
*Options		6-8	*Options		6-9
Electives		3-5	Electives		2-5
		17			17

Senior Year

Sls. 401	—Soil Morphology and Classification	3	
Sls. 405	—Soil Microbiology	3	
*Options		7-10	
Electives		2-4	
		17	

Sls. 402	—Advanced Soil Fertility	3
Sls. 408	—Soil and Water Conservation	3
*Options		6-9
Electives		2-5
		16

*A minimum of 24 hours of technical subjects is required for concentration in any field. Twelve to 19 hours electives, depending upon the field of concentrations, may be chosen in any subject. Students should consult the head of the department for approval of electives. The following courses are suggested: Ag. 301, Ag. 306, Ay. 321, Ay. 324, Ay. 329, Al. 211, Al. 309, Dy. 311, Ey. 201, Ey. 301, He. 201, He. 212, He. 316, He. 317, Py. 301. The electives in Agriculture in the Freshman and Sophomore years should be selected from these courses.

SCHOOL OF ARCHITECTURE AND ALLIED ARTS

FACULTY

Frederick T. Hannaford, B.A., A.I.A., Acting Director, Professor of Architecture
Guy Chandler Fulton, B.S.Arch., A.I.A., Assistant Professor of Architecture
*William T. Arnett, M.A.Arch., A.I.A., Assistant Professor of Architecture
*John Louis Rochaon Grand, M.A., Assistant Professor of Architecture
*Hollis Howard Holbrook, B.F.A., Assistant Professor of Drawing and Painting
*Alfred Browning Parker, B.S.Arch., Assistant Professor of Architecture
Carl Frederick Riter, M.A., Assistant Professor of Drawing and Painting
Yusuf Ziya Nebi, B.Arch., Instructor of Architecture

GENERAL STATEMENT

The work of the School of Architecture and Allied Arts is organized on the basis of a *Lower Division* and an *Upper Division.* Five professional curricula are offered: Architecture, Building Construction, Landscape Architecture, Painting, and Commercial Art.

Each curriculum is devised with the intention of giving thorough training in the fundamentals of the profession chosen. The project method of teaching, in which related material is integrated, is employed in every course in the School of Architecture and Allied Arts, and the projects of the various courses are so integrated that each curriculum, instead of being a series of separate subjects, is a unified and correlated whole.

Individual instruction is given to each student. Because of the individual nature of the work, each student passes from one group of problems to the next in varying lengths of time according to his accomplishments, and irrespective of University time units and the progress of other students.

Returning veterans and others who wish to take specialized work not leading to a professional degree may, upon satisfying the University entrance requirements and upon recommendation of the faculty of the School of Architecture and Allied Arts, be admitted to any of the courses offered.

ARCHITECTURAL REGISTRATION

The State of Florida, like most of the other states, has prescribed by law the qualifications for architectural practice and requires the passing of examinations given by a state board. Properly qualified persons may be admitted to the examinations of the National Council of Architectural Registration Boards, and many advantages accrue to those who obtain their registration in this way.

SPECIAL LECTURES

Prominent men from related fields and from the various chapters of the American Institute of Architects and the Florida Association of Architects are invited to give lectures which are intended to acquaint the student with the best professional thought and with the culture of our times.

The semi-annual business meeting of the Florida Association of Architects, which is held in the rooms of the School, is open to the students. An opportunity is thus provided for the students to become acquainted with the problems which confront the practicing architect, particularly in Florida, and to meet potential employers.

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*On leave of absence.

GRADUATE STUDY

The degree of Master of Arts in Architecture is offered in the Graduate School. For further information, see page 114.

REGULATIONS OF THE SCHOOL OF ARCHITECTURE AND ALLIED ARTS

Advancement.—Advancement in the Departments of Architecture and Painting are made by vote of the faculty. To be advanced from one course to the succeeding one, a student must have completed the projects of the course successfully, and must give evidence of satisfactory accomplishment in all the corequisite courses of his curriculum.

Academic Credit.—The School of Architecture and Allied Arts has dispensed with clock hours, class grades, and semester hours credit as prerequisites to the completion of its work. Understanding and demonstrated proficiency are used as a test for granting a degree, rather than the traditional accumulation of credits.

Student Responsibility.—The student must assume full responsibility for registering for the proper courses and for fulfilling all requirements for his degree. The faculty will assist and advise, but the student must take the initiative and assume responsibility for managing his own affairs.

Elective Courses.—In order that a student may broaden his general or professional education beyond the regular prescribed program he may obtain permission to enroll in such additional courses as he may select.

Student's Work.—All work submitted by students is the property of the School and may be retained for purposes of record, exhibition, or instruction.

Graduation with Honors.—Students successfully completing the work of the School shall, according to the character of their work as adjudged by the faculty, receive diplomas of graduation, of graduation *With Honors,* or of graduation *With High Honors.*

DEGREES AND CURRICULA

DEPARTMENT OF ARCHITECTURE

The Department of Architecture offers instruction in Architecture, Building Construction, and Landscape Architecture.

Architecture.—The work in Architecture is for students who desire to become architects or to enter some related field in which utility and beauty are combined objectives. It is the aim of this course to prepare students to become draftsmen, designers, inspectors and superintendents of construction, specification writers, teachers, etc., or ultimately to become practicing architects or specialists in their chosen fields.

The course in Architecture, while not of fixed duration, will nominally require three years beyond the University College, and leads to the degree of Bachelor of Architecture.

Building Construction.—The work in Building Construction is for students who are interested in the construction and erection of buildings rather than in their designing, or who wish to prepare themselves to design the structural parts of buildings, or to carry on the business of contracting, or to participate in other branches of the building industry.

The course in Building Construction, while not of fixed duration, will nominally require two years beyond the University College, and leads to the degree of Bachelor of Science in Building Construction.

Landscape Architecture.—The course in Landscape Architecture is designed to fit students for work in the arrangement and preservation of land areas for use and beauty. The aim is not only to prepare a graduate for immediate usefulness as an assistant to an established

practitioner, but also to lay a foundation for his ultimate independent practice of the profession.

The course in Landscape Architecture, while not of fixed duration, will nominally require two years beyond the University College, and leads to the degree of Bachelor of Science in Landscape Architecture.

CURRICULUM IN ARCHITECTURE

Admission.—To enter the School of Architecture and Allied Arts and to register for the curriculum leading to the degree in Architecture, students are required to present a certificate of graduation from the University College, and to have completed the following courses from among the possible electives in the University College:

Ae. 11A. Fundamentals of Architecture
Ms. 105-106. Basic Mathematics

Requirements for the Degree.—To qualify for the degree of Bachelor of Architecture a student must complete, to the satisfaction of the faculty, the following courses and must successfully pass a comprehensive examination therein.

	Nominal Semester in Which Course Occurs					
Ae. 21A.—Architectural Design	1st	2nd	.....	.....	.....	.....
Ae. 21B.—Architectural Design	.....	.....	3rd	4th	5th	.....
Ae. 31A.—Freehand Drawing and Water Color	1st	2nd	.....	.....	.....	.....
Ae. 31B.—Freehand Drawing and Water Color	.....	.....	3rd	4th	5th	.....
Ae. 41A.—History of Architecture	1st	2nd	.....	.....	.....	.....
Ae. 41B.—History of Architecture	.....	.....	3rd	4th	.....	.....
Ae. 41C.—Decorative Arts	.....	.....	.....	.....	5th	.....
Ae. 51A.—Materials and Methods of Construction	1st	2nd	3rd	4th	.....	.....
Ae. 51B.—Mechanical Equipment of Buildings	.....	.....	.....	4th	5th	.....
Ae. 51C.—Professional Relations and Methods	.....	.....	.....	.....	5th	.....
Ae. 61A.—Structural Design of Buildings	1st	2nd	.....	.....	.....	.....
Ae. 61B.—Structural Design of Buildings	.....	.....	3rd	4th	5th	.....
Ae. 71A.—Thesis	.....	.....	.....	.....	.....	6th

CURRICULUM IN BUILDING CONSTRUCTION

Admission.—To enter the School of Architecture and Allied Arts and to register for the curriculum leading to the degree in Building Construction, students are required to present a certificate of graduation from the University College, and to have completed the following courses from among the possible electives in the University College:

Ae. 11A, Fundamentals of Architecture
Ms. 105-106, Basic Mathematics

Requirements for the Degree.—To qualify for the Degree of Bachelor of Science in Building Construction a student must demonstrate, to the satisfaction of the faculty, his knowledge of the following subjects and must successfully pass a comprehensive examination therein.

	Nominal Semester in Which Course Occurs			
Ae. 41A. —History of Architecture	.....	2nd	3rd	.....
Ae. 52A. —Materials and Methods of Construction	1st	2nd	3rd	4th
Ae. 52B. —Mechanical Equipment of Buildings	.....	2nd	3rd	4th
Ae. 51C. —Professional Relations	.....	.....	.....	4th
Ae. 52D. —Working Drawings and Building Costs	1st	2nd	3rd	4th
Ae. 62A. —Structural Design of Buildings	1st	2nd	.....	.....
Ae. 62B. —Structural Design of Buildings	.....	.....	3rd	4th
CBs. 141-142.—Elementary Accounting	1st	2nd	.....	.....
CEs. 13. —Economic Foundations of Modern Life	1st	.....	.....	.....

CURRICULUM IN LANDSCAPE ARCHITECTURE

Admission.—To enter the School of Architecture and Allied Arts and to register for the curriculum leading to the degree in Landscape Architecture, students are required to

present a certificate of graduation from the University College, and to have completed the following courses from among the possible electives in the University College:

Ae. 11A, Fundamentals of Architecture
Acy. 125-6, Agricultural Chemistry

Requirements for the Degree.—To qualify for the degree of Bachelor of Science in Landscape Architecture a student must complete, to the satisfaction of the faculty, the following courses and must successfully pass a comprehensive examinations therein.

		Nominal Semester in Which Course Occurs			
Ae. 23A.	—Landscape Design	1st	2nd	.....	.....
Ae. 23B.	—Landscape Design	.....	.....	3rd	4th
Ae. 33A.	—Freehand Drawing and Water Color	1st	2nd	.....	.....
Ae. 33B.	—Freehand Drawing and Water Color	.....	.....	3rd	4th
Ae. 41B.	—History of Architecture and Landscape Architecture	1st	2nd	.....	.....
Ae. 53A.	—Materials and Methods of Construction	.....	2nd	.....	4th
Sls. 301.	—Soils	.....	.....	3rd	.....
Sls. 408.	—Soil and Water Conservation	.....	.....	.....	4th
Bty.303-304.	—General Botany	1st	2nd	.....	.....
Ey. 405.	—Insect Control	.....	.....	3rd	.....
Fy. 301.	—Dendrology	.....	.....	3rd	.....
He. 429.	—Ornamental Horticulture	1st	.....	.....	.....
He. 430.	—Advanced Ornamental Horticulture	.....	.....	.....	4th

DEPARTMENT OF PAINTING

The Department of Painting offers instruction in Painting and in Commercial Art.

Painting.—The purpose of the work in Painting is to develop the student's technical ability in pictorial art. Beginning with the fundamentals of drawing, design, and color, the work expands into a highly specialized study of pictorial art, including mural decoration, figure, landscape, and portrait painting.

The course in Painting, while not of fixed duration, will nominally require three years beyond the University College, and leads to the degree of Bachelor of Fine Arts.

Commercial Art.—In all fields of commercial activity the product must possess, to a high degree, the quality of beauty; in bringing the products of industry to the attention of the public the best artistic talent is demanded. To prepare designers for this field of endeavor, the work in Commercial Art is offered. In addition to work in drawing, design, and color, a sound foundation is laid in the fundamentals of business practice.

The course in Commercial Art, while not of fixed duration, will nominally require two years beyond the University College, and leads to the degree of Bachelor of Arts in Commercial Art.

CURRICULUM IN PAINTING

Admission.—To enter the School of Architecture and Allied Arts and to register for the curriculum leading to the degree in Painting, students are required to present a certificate of graduation from the University College, and to have completed the following courses from among the possible electives in the University College:

Pg. 11A, Fundamentals of Pictorial Art

Requirements for the Degree.—To qualify for the degree of Bachelor of Fine Arts a student must complete, to the satisfaction of the faculty, the following courses and must successfully pass a comprehensive examination therein.

		Nominal Semester in Which Course Occurs					
Pg. 21A.	—Pictorial Composition	1st	2nd	3rd	.....	.....	.....
Pg. 21B.	—Pictorial Composition	.....	.....	.....	4th	5th	.....
Pg. 31A.	—Freehand Drawing	1st	2nd	3rd	.....	.....	.....
Pg. 31B.	—Freehand Drawing	.....	.....	.....	4th	5th	.....
Pg. 41A.	—History of Painting	1st	2nd	.....	.....	.....	.....
Ae. 41B.	—History of Architecture	.....	.....	3rd	4th	.....	.....
Ae. 41C.	—Decorative Arts	.....	.....	.....	.....	5th	.....
Pg. 51A.	—Oil Painting	1st	2nd	.....	.....	.....	.....
Pg. 51B.	—Oil Painting	.....	.....	3rd	4th	5th	.....
Pg. 61A.	—Thesis	.....	.....	.....	.....	.....	6th

CURRICULUM IN COMMERCIAL ART

Admission.—To enter the School of Architecture and Allied Arts and to register for the curriculum leading to the degree in Commercial Art, students are required to present a certificate of graduation from the University College, and to have completed the following course from among the possible electives in the University College:

Pg. 11A, Fundamentals of Pictorial Art

Requirements for the Degree.—To qualify for the degree of Bachelor of Arts in Commercial Art a student must complete, to the satisfaction of the faculty, the following courses and must successfully pass a comprehensive examination therein.

	Nominal Semester in Which Course Occurs			
Pg. 22A. —Commercial Design	1st	2nd	.....	.....
Pg. 22B. —Commercial Design	.....	.....	3rd	4th
Pg. 32A. —Freehand Drawing	1st	2nd	.....	.....
Pg. 32B. —Freehand Drawing	.....	.....	3rd	4th
Pg. 52A. —Oil Painting	1st	2nd	.....	.....
Pg. 52B. —Water Color	.....	.....	3rd	4th
Bs. 433. —Advertising	.....	.....	3rd	.....
Es. 446. —The Consumption of Wealth	.....	.....	.....	4th
Es. 205-206 —Economic Foundations of Modern Life	1st	2nd	.....	.....
Bs. 211-212 —Elementary Accounting	1st	2nd	.....	.....

COLLEGE OF ARTS AND SCIENCES

FACULTY

Townes Randolph Leigh, Ph.D. (Chicago), D.Sc. (Stetson), Acting Vice-President and Dean
William Harold Wilson, Ph.D. (Illinois), Associate Dean

BIBLE

**Lucius Moody Bristol, Ph.D. (Harvard), Professor of Sociology (Special Status)

BIOLOGY AND GEOLOGY

James Speed Rogers, Ph.D. (Michigan), Head Professor of Biology and Geology
Theodore Huntington Hubbell, Ph.D. (Michigan), Professor of Biology and Geology
Harley Bakwel Sherman, Ph.D. (Michigan), Professor of Biology and Geology
Charles Francis Byers, Ph.D. (Michigan), Professor of Biology and Geology
*Howard Keefer Wallace, Ph.D. (Florida), Assistant Professor of Biology and Geology

CHEMISTRY

Townes Randolph Leigh, Ph.D. (Chicago), D.Sc. (Stetson), Head Professor of Chemistry
Alvin Percy Black, Ph.D. (Iowa), Professor of Chemistry
Fred Harvey Heath, Ph.D. (Yale), Professor of Chemistry
Vestus Twiggs Jackson, Ph.D. (Chicago), Professor of Chemistry
Cash Blair Pollard, Ph.D. (Purdue), Professor of Chemistry
John Erskine Hawkins, Ph.D. (Pennsylvania), Associate Professor of Chemistry and Associate Director Naval Stores Research
Burton J. H. Otte, M.S., Associate Professor and Curator of Chemistry and Drake Memorial Laboratory
George Washington Muhleman, D.Sc. (Geneva), Acting Assistant Professor of Chemistry

HISTORY AND POLITICAL SCIENCE

James Miller Leake, Ph.D. (Johns Hopkins), Head Professor of History and Political Science, Professor of Americanism and Southern History
James David Glunt, Ph.D. (Michigan), Professor of History and Political Science
William Stanmore Cawthon, M.A., Associate Professor Emeritus of History and Political Science
*Manning Julian Dauer, Ph.D. (Illinois), Associate Professor of History and Political Science
Angus McKenzie Laird, M.A., Associate Professor of History and Political Science
Ancil Newton Payne, Ph.D. (Illinois), Assistant Professor of History and Political Science

JOURNALISM

Elmer Jacob Emig, M.A., Head Professor of Journalism
William Leonard Lowry, B.A., Associate Professor of Journalism
*Frank Sumner Wright, B.S.J., Lecturer in Journalism
*Robert Erwin Hoag, B.A.J., Lecturer in Journalism

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*On leave of absence.
**By special assignment to the Department of Bible. 1944-45.

LANGUAGE AND LITERATURE

*Clifford Pierson Lyons, Ph.D. (Johns Hopkins), Chairman of Division of Language and Literature and Professor of English
James Nesbit Anderson, Ph.D. (Johns Hopkins), Professor Emeritus of Ancient Languages
James Marion Farr, Ph.D. (Johns Hopkins), Professor Emeritus of English
Charles Archibald Robertson, M.A., Acting Chairman of Division and Professor of English
Ernest George Atkin, Ph.D. (Harvard), Professor of French, and Member of Executive Committee, Division of Language and Literature
Oliver Howard Hauptmann, Ph.D. (Wisconsin), Professor of Spanish and German, and Member of Executive Committee, Division of Language and Literature
*Norman E. Eliason, Ph.D. (Johns Hopkins), Professor of English
Joseph Brunet, Ph.D. (Stanford), Professor of French
*George Gillespie Fox, Ph.D. (Princton), Professor of English
Lester Collins Farris, M.A., Associate Professor of English
Wilbert Alva Little, M.A., Associate Professor of Ancient Languages (Special Status)
Alton Chester Morris, Ph.D. (North Carolina), Associate Professor of English
*Herman Everette Spivey, Ph.D. (North Carolina), Associate Professor of English
*Thomas Bradley Stroup, Ph.D. (North Carolina), Associate Professor of English
Washington Augustus Clark, Jr., M.A., Assistant Professor of English
*Frederick William Conner, Ph.D. (Pennsylvania), Assistant Professor of English
Lewis Francis Haines, Ph.D. (Michigan), Assistant Professor of English
Oscar Frederick Jones, Ph.D. (Stanford), Assistant Professor of Spanish and German
Charles Eugene Mounts, Ph.D. (Duke), Assistant Professor of English
Albert Alexander Murphree, M.A. (Oxon.), Assistant Professor of English
*Jon Richard Ashton, Ph.D. (Wisconsin), Assistant Professor of Spanish
Biron H. Walker, M.A., Instructor in English
Vidal Trujillo, M.A., Instructor in Spanish

MATHEMATICS

Thomas Marshall Simpson, Ph.D. (Wisconsin), Head Professor of Mathematics
William Harold Wilson, Ph.D. (Illinois), Professor of Mathematics
Franklin Wesley Kokomoor, Ph.D. (Michigan), Professor of Mathematics
*Hallett Hunt Germond, Ph.D. (Wisconsin), Associate Professor of Mathematics
*Joseph Harrison Kusner, Ph.D. (Pennsylvania), Associate Professor of Mathematics
Cecil Glenn Phipps, Ph.D. (Minnesota), Professor of Mathematics
Zareh Meguerditch Pirenian, M.S., Associate Professor of Mathematics
Bernard Francis Dostal, M.A., Assistant Professor of Mathematics
Sam W. McInnis, M.A., Assistant Professor of Mathematics
*Edward Schaumberg Quade, Ph.D. (Brown), Associate Professor of Mathematics
Uri Pearl Davis, M.A., Assistant Professor of Mathematics
*Theodore S. George, Ph.D. (Duke), Instructor in Mathematics
Walter Lawton Blanton, M.A.E., Instructor in Mathematics
Gaines Barrett Lang, Ph.D. (Illinois), Instructor in Mathematics

PHILOSOPHY

Hasse Octavius Enwall, Ph.D. (Boston), Professor of Philosophy (Special Status)

*On leave of absence.

PHYSICS

Robert Crozier Williamson, Ph.D. (Wisconsin), Head Professor of Physics
Arthur Aaron Bless, Ph.D. (Cornell), Professor of Physics
William Sanford Perry, M.S., Associate Professor of Physics
Harold Loraine Knowles, Ph.D. (Kansas), Associate Professor of Physics
Daniel Cramer Swanson, Ph.D. (Cornell), Associate Professor of Physics
*Ralph E. Carroll, Curator in Physics

PSYCHOLOGY

Elmer Dumond Hinckley, Ph.D. (Chicago), Head Professor of Psychology and Director of the Bureau of Vocational Guidance and Mental Hygiene
Osborne Williams, Ph.D. (Chicago), Assistant Professor of Psychology
William Richard Thompson, Ph.D. (Purdue), Assistant Professor of Psychology

SOCIOLOGY

John Miller Maclachlan, Ph.D. (North Carolina), Head Professor of Sociology
**Lucius Moody Bristol, Ph.D. (Harvard), Professor of Sociology (Special Status)
*Winston Wallace Ehrmann, Ph.D. (Yale), Associate Professor of Sociology
Bruce Oliver Thomason, M.A., Acting Assistant Professor of Sociology

SPEECH

Henry Philip Constans, M.A., LL.B., Head Professor of Speech
Lester Leonard Hale, Ph.D., (Louisiana State University), Associate Professor of Speech
Roy Edwards Tew, M.A., Assistant Professor of Speech

DIVISION OF GEOGRAPHY AND GEOLOGY

(An Intercollegiate Unit Offering a Program Leading to Degrees in the College of Arts and Sciences)

ADMINISTRATIVE COMMITTEE

H. Harold Hume, M.S.A., D.Sc. (Clemson), Dean of the College of Agriculture
Winston Woodard Little, M.A., Dean of the University College
Walter Jeffries Matherly, M.A., LL.D. (William Jewell), Dean of the College of Business Administration
Joseph Weil, B.S.E.E., M.S., Dean of the College of Engineering
William Harold Wilson, Ph.D. (Illinois), Associate Dean of the College of Arts and Sciences

STAFF

*Sigismond DeR. Diettrich, Ph.D. (Clark), D.Sc. (Budapest), Associate Professor of Economic Geography in the College of Business Administration, Chairman of the Division, and Head of the Geography Section
Theodore Huntington Hubbell, Ph.D. (Michigan), Professor of Biology and Geology in the College of Arts and Sciences, Acting Chairman of the Division, and Head of the Geology Section.

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*Leave of absence.
**By special assignment to the Department of Bible, 1944-45.

FREDERICK BUREAN SMITH, Ph.D. (Iowa State College), Professor of Soils in the College of Agriculture

*RICHARD ARCHER EDWARDS, Ph.D. (North Carolina), Assistant Professor of Physical Sciences in the University College

GENERAL STATEMENT

The subject-matter fields regularly offered to students in the College of Arts and Sciences are

Astronomy	French	Mathematics
Bacteriology	General Science	Music
Bible	Geography	Philosophy
Biology	Geology	Physicis
Botany	German	Political Science
Chemistry	Greek	Portuguese
Economics	History	Psychology
Education	Journalism	Sociology
English	Latin	Spanish
		Speech

Curricula are offered which lead to the degrees of Bachelor of Arts, Bachelor of Science, Bachelor of Arts in Journalism and Bachelor of Science in Chemistry. The College also offers courses in combination with Law, which lead to the first three of these degrees. The College offers programs of special interest in Geography and Geology (page 81), in Inter-American Affairs (page 78), in Radio Broadcasting Training (page 118), and in Social Administration (page 81).

CHAIR OF AMERICANISM

Through the generosity of the American Legion, Department of Florida, which has provided a fund of $40,000 for this purpose, supplemented by legislative appropriation, there is maintained a Professorship in the University known as the "Chair of Americanism". The holder of this professorship is head of the Department of History and Political Science, offering courses in American History, Government, and Constitutional Law.

GRADUATION WITH HONORS AND HIGH HONORS

For graduation *With Honors* a student must earn an honor point average of 3.2 or greater in the work of the Upper Division.

The regulations concerning graduation *With High Honors* are administered by a committee of the faculty of the College. This committee invites students of sufficiently meritorious scholastic record to take a high honors examination designed to test: the student's grasp of great events, achievements and personalities in the general fields of human interest; the student's comprehension and grasp of his major field; and the student's initiative, thoroughness and accuracy. Recommendation for graduation *With High Honors* is based upon excellence in the high honors examination, honor point average, distribution and quality of subject-matter studied, and evaluation of the student by his teachers.

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*On leave of absence.

CORRESPONDENCE STUDY

No part of the last thirty credits counted toward a degree may be earned by correspondence or extension study except by special permission.

STUDENT RESPONSIBILITY

Each student must assume full responsibility for registering for the proper courses and for fulfilling all requirements for his degree.

Seniors must file formal application for a degree in the Office of the Registrar and must pay the diploma fee very early in the semester in which they expect to receive the degree; the official calendar shows the latest date on which this can be done.

Each student is responsible for every course for which he registers. *Courses can be dropped or changed without penalty only through the office of the Dean of the College.*

The student's program of studies is subject to the approval of the adviser, the curriculum committee, and the dean or his appointee.

MAXIMUM LOAD

No student will be permitted to carry more than 17 semester hours in any semester unless his honor point average for the preceding semester is at least 2.5.

No student will be permitted to carry more than 19 hours in any one semester except by special permission.

DEGREES AND CURRICULA

ADMISSION

To enter the College of Arts and Sciences students are required to present a certificate of graduation from the University College and to be certified by the Board of University Examiners as qualified to pursue the work of the College. Transfer students who wish to enter the College of Arts and Sciences are referred to the Board of University Examiners in accordance with the provisions of the section of this bulletin entitled "Transfer Students," page 15.

THE DEGREES OF BACHELOR OF ARTS AND BACHELOR OF SCIENCE

The curricula which lead to the degrees of Bachelor of Arts and Bachelor of Science are alike in all basic requirements.

The requirements for graduation from these curricula are as follows:

A total of sixty-four semester hours, with an average of C or better; in this total must be included (1) either a Departmental Major or a Group Major as described below, and (2) at least twelve semester hours, selected with the approval of the Dean or his appointee, in departments other than those which contribute to the major.

THE DEPARTMENTAL MAJOR

Many students desire or find it expedient to specialize in some one subject-matter field. Such students should undertake to earn a departmental major.

A departmental major consists of three parts, as follows:

(1) Concentration consisting of not less than 24 and not more than 32 semester hours in one subject-matter field. This field is called the student's major field. The head of the department in which the major field is administered, or his appointee, will act as the student's registration adviser. Each student expecting to earn a

departmental major should consult his adviser regarding choice of courses before each registration. *No courses in the major field in which the grade earned is below C will be counted toward fulfillment of this requirement.*

(2) A reading knowledge of a foreign language or 6 semester hours in a foreign language course numbered above 100.

(3) Such subsidiary courses from subject-matter fields other than the major field as are essential to thoroughness of concentration and comprehension. The student should consult his adviser concerning these courses.

THE GROUP MAJOR

Group Majors are provided for those students who do not need or desire the intensive concentration required in a departmental major. The group major should not be taken by students planning on doing graduate work.

A group major consists of two parts, as follows:

(1) A total of not less than fourteen semester *courses* selected from a group of three related subject-matter fields, with at least four semester courses in each, and an average of C or better in each of these fields.

(2) A reading knowledge of a foreign language or 6 semester hours in a foreign language course numbered above 100.

BACHELOR OF ARTS

The degree of Bachelor of Arts will be conferred upon those who fulfill the requirements for degrees with majors in one or more of the fields of Bible, Economics, English, French, German, History, Journalism, Philosophy, Political Science, Sociology, Spanish and Speech.

BACHELOR OF SCIENCE

The degree of Bachelor of Science will be conferred upon those who fulfill the requirements for degrees with majors in one or more of the fields of Bacteriology, Biology, Botany, Chemistry, Geology, and Physics.

BACHELOR OF ARTS OR BACHELOR OF SCIENCE

The degree of Bachelor of Arts or Bachelor of Science will be conferred upon those who fulfill the requirements for the degree with majors in one or more fields of Geography, Mathematics, and Psychology when their remaining courses are selected predominantly from the other fields which lead to either one or the other degree.

GROUP MAJOR IN INTER-AMERICAN AFFAIRS

This program of studies provides the student with a many-sided liberal education for present-day citizenship and at the same time trains him for lines of endeavor that require specialized knowledge and understanding of the peoples and nations of the Western Hemisphere. Variations in the number and character of specialized courses included in the student's program make it possible to concentrate in many different aspects of Inter-American Affairs, including industrial and commercial, diplomatic and consular, journalistic, etc. Special opportunities are available for advanced study through the facilities of the Institute of Inter-American Affairs of the University of Florida. Students majoring in Inter-American Affairs are urged to spend at least one semester or two summer sessions in a University located in one of the countries of Latin America.

Requirements

(1) A group major from three of the following fields: Languages, Geography, History, Economics, Political Science, and Sociology.

(2) Four semester courses approved by the group adviser and the Dean or his appointee, in fields other than those chosen under (1) above.

(3) A student should have a speaking, reading, and writing knowledge of Spanish and English, and is urged to have some knowledge of Portuguese or French. Under ordinary conditions, as regards Spanish, this will involve the completion of Spanish 313-314, or the equivalent. In any case a student must have at least a reading knowledge of a foreign language or 6 semester hours in a foreign language course numbered above 100.

(4) The following courses, or their equivalent should be included in the student's program, either as part of the major or as electives:

Geography:	Gpy. 201	Geography of the Americas	3
	Es. 381	Economic Geography of North America	3
	Es. 385	Economic Geography of South America	3
History:	Hy. 241	History of the Modern World	4
	Hy. 317	Latin American History 1850-1900	3
	Hy. 318	Latin American History 1900-Present	3
Economics:	Es. 205-206	Economic Foundations of Modern Life	6
	Bs. 443	Foreign Trade	3
Political Science:	Pcl. 241	Political Foundations of Modern Life	4
	Pcl. 309	International Relations	3
	Pcl. 310	International Relations	3
Sociology:	Sy. 364	Latin American Civilization	3

In addition to foreign language courses, the student is advised to select his general college electives from the above.

THE DEGREE BACHELOR OF ARTS IN JOURNALISM

Instruction in Journalism is designed to provide study and training for those interested in: (1) journalism as a career, and who aspire to the more important positions in the field of communications, such as printing, radio, and films; (2) newspaper production, either in editorial or business phases; (3) reporting and evaluation of public affairs; (4) careers closely related to journalism, in which journalistic knowledge and training would conduce to greater success; and (5) the cultural perspective to be attained by the study of journalism as a means of understanding the evolving events of civilization.

Students interested in professional training for journalism may pursue the curriculum leading to the degree of Bachelor of Arts in Journalism, while students interested in the cultural training which the study of journalism affords may select journalism as a departmental or group major in the curriculum leading to the degree of Bachelor of Arts.

Sixty-four semester hours with an average of C or higher, and a grade of C or higher in all journalism courses to be counted toward the degree. In the sixty-four semester hours must be included the journalism courses required for either the Writing and Editing Sequence or the Business Sequence. The remainder of the sixty-four semester hours must be earned in approved *electives*, with *not less than six nor more than eighteen credits in any one department*, and with at least eighteen credits in courses outside the Department of Journalism.

The following courses must be taken: Jm. 213, 214, 215, and 216. They should be taken as electives in the General College, but may be taken in the Upper Division with the approval of the Head of the Department. In addition, the courses of one or the other of the following sequences are required:

WRITING AND EDITING SEQUENCE (NEWSPAPER, RADIO, OR MAGAZINE)

Jm.	301	News Writing and Editing	4
Jm.	302	News Writing and Editing	4
Jm.	314	Magazine Writing and Editing	3
Jm.	407	Interpreting the News	3
Jm.	408	Propaganda	3
Jm.	409	Law of the Press	3
Jm.	412	Contemporary Journalistic Thought	3

BUSINESS SEQUENCE (MANAGEMENT, ADVERTISING, OR CIRCULATION)

Jm.	301	News Writing and Editing	4
Jm.	302	News Writing and Editing	4
Jm.	317	Mechanics of Publishing	3
Jm.	318	Newspaper Management	3
Jm.	407	Interpreting the News	3
Jm.	408	Public Opinion	3
Jm.	409	Law of the Press	3
Jm.	411	Public Relations	3
Jm.	412	Contemporary Journalistic Thought	3

CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF SCIENCE IN CHEMISTRY

This curriculum offers an especially strong foundation in chemistry for students who desire to make chemistry their vocation.

The requirements for graduation from this curriculum (in addition to the requirements for admission to the College of Arts and Sciences) are as follows:

A total of seventy-five semester hours, with an average of C or better; in which total must be included—

(1) All of the following courses except those which have been used for graduation from the University College, or its equivalent, as determined by the Board of University Examiners: Cy. 101-102, Cy. 111-112, Cy. 201-202, Cy. 211-212, Cy. 301-302, Cy. 311-312, Cy. 401-402, Cy. 411-412, and Cy. 481-482; Ms. 105-106, Ms. 353-354; a course in college physics, with laboratory, of not less than eight semester credit hours; Gn. 33-34, Gn. 201-202; and Eh. 355, and

(2) at least twenty-five additional semester hours, selected with the approval of the Dean, or his appointee, outside of the field of chemistry.

However, no grade below C in any course in chemistry, wherever earned, will be counted for the degree. Furthermore, nor course in chemistry other than those listed in (1) above, or equivalent, may be counted for this degree.

Students studying in this curriculum may carry 19.5 hours in each term in their senior year if they have qualified for a nineteen-hour load.

THE CURRICULA IN COMBINATION WITH LAW

The College of Arts and Sciences offers three curricula in combination with Law.

The requirements for the degrees of Bachelor of Arts and Bachelor of Science in these curricula are basically the same, and may be described as follows:

I. Thirty-six semester hours and an average of C, or better, in the College of Arts and Sciences,

II. twenty-eight semester hours and an average of C, or better, in the College of Law, and

III. a departmental major or a group major leading to the degree of Bachelor of Arts or Bachelor of Science. (See page 77).

The requirements for the degree of Bachelor of Arts in Journalism in the combined Journalism-Law curriculum are the same as the requirements for graduation in the curriculum leading to the degree of Bachelor of Arts in Journalism (see page 79), provided, however, that credit must be earned as follows:

I. Thirty-six semester hours and an average of C, or better, in the College of Arts and Sciences, and

II. twenty-eight semester hours and an average of C, or better, in the College of Law.

THE PRE-MEDICAL CURRICULUM

The College of Arts and Sciences cooperates with students who wish to secure training which will fit them to enter upon the study of medicine. All such students are advised to consult medical school bulletins carefully and widely. The program in the College of Arts and Sciences will be planned in accordance with the needs of the individual student. It is strongly urged, however, that pre-medical students follow and complete the curriculum leading to the degree of Bachelor of Science.

Students who are interested in medicine are invited to the Office of the Dean of the College of Arts and Sciences for counsel and advice.

THE CURRICULUM IN SOCIAL ADMINISTRATION

This program provides training for beginning workers in social administration and a foundation for those desiring graduate work in this field. The curriculum is so designed that the student is provided with a pre-professional background without sacrificing the advantages of a liberal education.

The Curriculum in Social Administration leads to the degree of Bachelor of Arts and all requirements for this degree must be met (see page 77). The student has a choice of a departmental major in Sociology, with appropriate subsidiary and free elective courses, or a group major taken from three of the following areas — Economics, History and Political Science, Psychology, and Sociology. If a group major is selected the twelve hours of required free electives must be chosen from courses outside of Economics, History and Political Science, Psychology, and Sociology. University College electives recommended for students preparing to enter the Curriculum of Social Administration include: Bs. 211-212, Es. 203, Es. 205-206, Hy. 241, Pcl. 241, Sy. 241, Psy. 201, Sch. 241.

Students registering in the curriculum are expected to confer with the Chairman of the Committee on Social Administration, and to follow programs of study in conformity with the recommendations of the committee. These programs are designed to meet the requirements for Certification in Social Administration as well as to meet those for the degree of Bachelor of Arts.

DIVISION OF GEOGRAPHY AND GEOLOGY

The Division of Geography and Geology is organized to provide for instruction and research in geography and geology, to meet the needs of students who wish to obtain some knowledge of these subjects as a part of their general education; to provide part of the training for students preparing for business careers and for the United States Foreign

Service; to prepare students for positions as teachers of geography and geology; to train students for research work: as investigators in governmental service, as experts for commercial, agricultural and industrial firms and as specialists in resources and land planning.

Advanced work in geography and geology is becoming increasingly significant and essential in the rapid growth of the State of Florida, especially with regard to the discovery and utilization of natural resources, in agricultural development and in land planning and land use programs. In geography the University of Florida is peculiarly suited to the study of sub-tropical geography, the Caribbean region, climatic studies including air drainage and frost formation, agricultural geography, mapping and cartography, and year around geographic field work. In geology special opportunities exist for the study of reoent sedimentary rocks, shorelines and marine terraces, ground water problems and sub-surface erosion, paleontology and petroleum geology, and special resources such as phosphate, lime rock, glass sands, fullers earth, kaolin, etc.

DEGREES AND CURRICULA

Students desiring to concentrate in Geography or Geology will register in the College of Arts and Sciences. The curricula lead to the degrees of Bachelor of Arts or Bachelor of Science. (See page 73.) Group Majors are available for students desiring to combine training in Geography or Geology and two or more related fields; i. e., training for Latin American Affairs, Land Use and Land Planning, Climatology, Cartography, etc.

Geography Sequence

Students are advised to begin the study of a modern foreign language and complete Gpy. 203, Gpy. 204, Gy. 203 in the University College as electives.

Junior Year

Courses	First Semester	Credits	Courses	Second Semester	Credits
Es. 205	—Economic Foundations of Modern Life	3	Es. 206	—Economic Foundations of Modern Life	3
Sls. 301	—Soils	3	Es. 382	—Utilization of Our Resources	3
Gpy. 323	—Elementary Climatography	3	Gpy. 312	—Plant and Animal Geography	3
	*Electives	7	Gpy. 330	—Maps, Charts and Graphs	3
				*Electives	4
		16			16

Senior Year

Gy. 401	—Physiography of North America	3	Gpy. 430	—Field Mapping and Advanced Cartography	3
Es. 381	—Economic Geography of North America	3		†Optional course in Geography	3
	*Electives	10		*Electives	10
		16			16

*All electives must be approved by the student's advisory committee. Students are advised to take one full year above the elementary course in English. Students wishing to concentrate in the physical aspects of geography, agricultural geography and land utilization, or the cultural and human aspects will be required to take courses in the various fields concerned.

†The major in Georgraphy requires the completion of six semester hours in Geography or Geology courses numbered above 380, in addition to those specified above.

Geology Sequence

Students are advised to begin the study of a modern foreign language and complete Gpy. 203, Gpy. 204, Gy. 203 in the University College as electives.

Junior Year

Courses	First Semester	Credits	Courses	Second Semester	Credits
Gy. 204	—Historical Geology	3	Gy. 321	—Elementary Paleontology	3
Gy. 308	—Elementary Mineralogy and Petrology	3	Gpy. 312	—Plant and Animal Geography	3
Sls. 301	—Soils	3	Gpy. 330	—Maps, Charts and Graphs	3
	*Electives	7		*Electives	7
		16			16

Senior Year

Gy. 401	—Physiography of North America	3	Gpy. 430	—Field Mapping and Advanced Cartography	3
Gpy. 323	—Elementary Climatography	3		†Optional course in Geology	3
	†Optional course in Geology	3		*Electives	10
	*Electives	7			
		16			16

*Electives must be approved by the student's advisory committee. Students are advised to take one full year above the elementary course in English.

†The major in Geology requires the completion of nine semester hours in Geology or Geography courses numbered above 280. in addition to those specified above.

THE COLLEGE OF BUSINESS ADMINISTRATION

FACULTY

WALTER JEFFRIES MATHERLY, M.A., LL.D. (William Jewell), Dean and Head Professor of Economics

MONTGOMERY DRUMMOND ANDERSON, Ph.D. (Robert Brookings), Professor of Business Statistics and Economics

*ROLLIN SALISBURY ATWOOD, Ph.D. (Clark), Professor of Economic Geography, Director of Institute of Inter-American Affairs

DAVID MIERS BEIGHTS, Ph.D. (Illinois), C.P.A. (Florida, West Virginia), Professor of Accounting

TRUMAN C. BIGHAM, Ph.D. (Stanford), Professor of Economics

HARWOOD BURROWS DOLBEARE, B.A., Professor of Finance

JOHN GRADY ELDRIDGE, M.A., Professor of Economics

ROLAND B. EUTSLER, Ph.D. (Pennsylvania), Professor of Economics and Insurance and Director of the Bureau of Economic and Business Research

*SIGISMOND DER. DIETTRICH, Ph.D. (Clark), D.Sc. (Budapest), Professor of Economic Geography

JAMES EDWARD CHACE, JR., M.B.A., Ph.D. (Chicago), Associate Professor of Economics and Realty Management

*CLEMENT HAROLD DONOVAN, Ph.D. (North Carolina), Associate Professor of Public Finance

*OSCAR EDWARD HESKIN, Ph.D. (Minnesota), Associate Professor of Economics and Marketing

*HUBER CHRISTIAN HURST, M.A., LL.B., Associate Professor of Business Law and Economics

*JOHN BERRY MCFERRIN, Ph.D. (North Carolina), Associate Professor of Economics

WILLIAM HARRY JOUBERT, M.A., Ph.D. (North Carolina), Associate Professor of Economics

JOHN WAMSER DIETZ, M.A., Assistant Professor of Finance, part time

*JOHN WESLEY FLY, M.A., C.P.A. (Florida), Assistant Professor of Accounting

*EARL P. POWERS, M.A., C.P.A. (Florida), Assistant Professor of Accounting

*FRANK WALDO TUTTLE, Ph.D. (Iowa), Assistant Professor of Economics

GENERAL STATEMENT

The College of Business Administration offers curriculums in two different fields: Business Administration and Public Administration.

Instruction in Business Administration is designed to provide analysis of the basic principles of business. Its purpose is to prepare students (1) to become business executives; (2) to assume the increasing responsibilities of business ownership; and (3) to act in the capacity of business specialists.

Business education involves consideration of the following occupational levels: (1) upper levels composed of proprietors and executives; (2) intermediate levels composed of department heads and minor executives; and (3) lower levels composed of clerical and routine workers. The scope of business education includes preparation for all of these levels. While the College of Business Administration has organized its curricula in business administration to prepare students primarily to occupy the upper and intermediate levels, it has not entirely ignored the lower levels.

The College of Business Administration does not profess to turn out finished business managers, executives, department heads, or minor executives. Its curricula provide instruc-

*On leave of absence.

tion that will help to shorten the period of apprenticeship for those who expect to enter business occupations.

Instruction in Public Administration is designed to provide analysis of the basic principles of government. Its purpose is to prepare students for public service occupations. Government has become increasingly complex and requires personnel thoroughly trained in political science, economics, history, and other related sciences. The program of training offered supplies fundamental courses in these various fields. It does not equip students with specific skills; it is designed to provide them with broad training in the structure and functions of government and to prepare them for readier entry into public life and occupations.

It is hoped that arrangements in the near future may be made to provide students with actual experience and initiation into government service through a limited number of internships in state and local government.

RADIO TRAINING

Students in the College of Business Administration who are interested in the special program for Radio Broadcasting Training should see page 118.

LECTURES BY BUSINESS EXECUTIVES AND GOVERNMENT OFFICIALS

It is the policy of the College to invite from time to time prominent business executives and public officials both from within and from without the state to address the students in business administration and in public administration.

BUREAU OF ECONOMIC AND BUSINESS RESEARCH

The College of Business Administration maintains a Bureau of Economic and Business Research which provides faculty members and graduate students with an opportunity to engage in specific types of research work. Its activities are coordinated with the research activities of the College as a whole.

MEMBERSHIP IN NATIONAL AND REGIONAL ASSOCIATIONS

The College of Business Administration is a member of the American Association of Collegiate Schools of Business and of the Southern Economic Association.

PLACEMENT OF GRADUATES

While the College of Business Administration does not obligate itself to secure positions for its graduates, it operates a placement service and does everything it can to assist students in securing employment after graduation.

BUSINESS WRITING

Students in the College of Business Administration are permitted to include Eh. 355.—*Business Writing* among their electives in Business Administration. Those students found deficient in English will be reported to the office of the Dean and the Dean may require them to take *Business Writing* during the next semester.

ADJUSTMENTS TO WAR NEEDS

Students in the College of Business Administration may be permitted, subject to the approval of the Dean, to make certain adjustments in their courses arising out of their needs for specific types of training in preparation for the armed services.

MAXIMUM CREDIT LOADS OF STUDENTS

The maximum credit load of all students registered for the curriculum in Public Administration as well as for the curriculum in Business Administration proper during each of their first two semesters (first year) shall be 15 academic semester hours (6 in summer session). However, these students may increase their credit loads to 18 academic semester hours during their first semester, provided they have graduated from the General College with honors; likewise, they may increase their credit loads to 18 academic semester hours (9 in summer session) during their second semester, provided they have attained an honor point average of 3 (B) or more in the preceding semester. The maximum credit load of all students after their first two semesters is limited to 18 academic semester hours. The minimum requirement for graduation from the College of Business Administration is 66 semester hours on which the student must earn an average of C or better. To graduate *With Honors*, a student must have graduated from the University College with honors and completed the work of the Upper Division with an average of 3.0 (B) or higher, or in lieu of graduation from the University College with honors, have completed the work of the Upper Division with an average of 3.2 or higher. To graduate *With High Honors*, a student must meet the following requirements:

1. Attain a scholastic average in all academic courses of 3.4 or better.
2. Secure the recommendation of a Faculty Committee.

A copy of detailed regulations governing graduation with high honors may be obtained from the Office of the Dean.

Of the 66 semester credit hours required for graduation, not more than six semester credit hours may be earned by correspondence or extension study. Such credit hours, furthermore, must be approved for each individual student in advance by the Committee on Curricular Adjustments.

DEGREES AND CURRICULA

The College of Business Administration offers two degrees: The Bachelor of Science in Business Administration and the Bachelor of Science in Public Administration. To secure the first degree students must complete either the Curriculum in Business Administration Proper or the Curriculum in Combination with Law. To secure the second degree they must complete the Curriculum in Public Administration.

CURRICULUM IN BUSINESS ADMINISTRATION

To enter the College of Business Administration and to register for the Curriculum in Business Administration, or the Curriculum in Combination with Law, students are required to present a certificate of Associate of Arts from the University College and to have completed the following courses in the University College:

Es. 205-206.—Economic Foundations of Modern Life
Bs. 211-212.—Elementary Accounting
Es. 203.—Elementary Statistics

Junior Year

Courses	First Semester	Credits	Courses	Second Semester	Credits
Es. 321	—Financial Organization of Society	3	Es. 322	—Financial Organization of Society	3
Es. 327	—Public Finance	3	Es. 335	—Economics of Marketing	3
Bs. 401	—Business Law	3	Es. 351	—Elements of Transportation	3
	*Electives	6	Bs. 402	—Business Law	3
				*Electives	3
		15			15

Senior Year

Es. 407	—Economic Principles and Problems	3	Es. 408	—Economic Principles and Problems	3
	*Electives	15		*Electives	15
		18			18

*Nine semester hours may be approved free electives of which six may be taken in advanced military science. The remaining hours are limited to courses in economics and business administration and Eh. 355.—Business Writing, except that additional hours of free electives which may be of direct value to students in the armed forces may be approved by the Dean.

CURRICULUM IN COMBINATION WITH LAW

The College of Business Administration combines with the University College and the College of Law in offering a six-year program of study to students who desire ultimately to enter the College of Law. Students register during the first two years in the University College and the third year in the College of Business Administration. When they have fully satisfied the academic requirements of the College of Business Administration, they are eligible to register in the College of Law and may during their last three years complete the course in the College of Law. When students have, after entering the College of Law, completed one year's work in law (28 semester hours with at least a C average), they may offer this year's work as a substitute for the fourth year in the College of Business Administration and receive the degree of Bachelor of Science in Business Administration.

The maximum credit load for all students registered for the curriculum in combination with law is 18 academic semester hours. To graduate *With Honors,* a student must have graduated from the University College with honors and completed 70 semester hours on which he has earned an average of 3.0 or higher, or in lieu of graduation from the University College with honors, complete 70 semester hours on which he has earned an average of 3.2 or higher.

The curriculum in Business Administration in combination with Law consists of 27 semester hours of required courses and 15 hours of elective courses. The requirements are as follows:

Courses		Credits
Es. 321–322	—Financial Organization of Society	6
Es. 327	—Public Finance	3
Es. 335	—Economics of Marketing	3
Es. 351	—Elements of Transportation	3
Es. 404	—Government Control of Business	3
Es. 407–408	—Economic Principles and Problems	6
Es. 454	—Principles of Public Utility Economics	3
	*Electives	15
		42

*Electives are limited to courses in business administration and six semester hours in advanced military science.

THE CURRICULUM IN PUBLIC ADMINISTRATION

To enter the College of Business Administration and to register for the Curriculum in Public Administration students are required to present a certificate of Associate of Arts from the University College and to have completed the following courses in the University College:

Pcl. 241.—Political Foundations of Modern Life
Es. 205-206.—Economic Foundations of Modern Life
Bs. 211-212.—Elementary Accounting.

Junior Year

Courses	First Semester	Credits	Courses	Second Semester	Credits
Es. 203	—Elementary Statistics	4	Es. 327	—Public Finance	3
Es. 407	—Economic Principles and Problems	3	Es. 408	—Economic Principles and Problems	3
Hy. 331	—Survey of American History	3	Hy. 332	—Survey of American History	3
Pcl. 313	—American Government and Politics	3	Pcl. 314	—American Government and Politics	3
	*Electives	2		*Electives	3
		15			15

Senior Year

Pcl. 411	—Public Administration	3	Es. 404	—Government Control of Business	3
	*Electives	15	Es. 454	—Principles of Public Utility Economics	3
			Pcl. 412	—Public Administration	3
				*Electives	9
		18			18

*Six semester hours of electives may be taken in advanced military science or in approved free electives. The remaining hours, subject to the approval of the Dean, are limited primarily to courses in the following Departments: Economics and Business Administration; History and Political Science; and Sociology, except that additional hours of free electives which may be of direct value to students in the armed forces may be approved by the Dean.

COLLEGE OF EDUCATION

FACULTY

Glenn Ballard Simmons, Ph.D. (Johns Hopkins), Acting Dean and Professor of Education

Alfred Crago, Ph.D. (Iowa), Professor of Educational Psychology and Measurements and Laboratory School Psychologist

Joseph Richard Fulk, Ph.D. (Nebraska), Professor of Public School Administration (Special Status)

Edward Walter Garris, Ph.D. (Peabody), Sc.D. (Clemson), Professor of Agricultural Education

Hal Graham Lewis, M.A.E., Professor of Education and Principal, P. K. Yonge Laboratory School

William Travis Loften, M.A.E., Professor of Agricultural Education and Itinerant Teacher Trainer

Arthur Raymond Mead, Ph.D. (Columbia), Ed.D. (Miami University), Professor of Supervised Student Teaching and Director of Bureau of Educational Research and School Services

James William Norman, Ph.D., (Columbia), Professor of the Theory and Art of Teaching and Dean of the Summer Session

Ellis Benton Salt, Ed.D. (New York University), Professor of Health and Physical Education

*Adam Webster Tenney, M.A., Professor of Agricultural Education

Walter Rollin Williams, Ph.D. (Ohio), Professor of Education

*Harry Evans Wood, M.A.E., Professor of Agricultural Education and Itinerant Teacher Trainer

Mary Elizabeth Barry, M.A., Acting Associate Professor of Education and Acting Chairman of Inter-American Education Demonstration Center

*Carroll Fleming Cumbee, M.A.E., Research Associate

Leon Archibald Gray, M.A.E., Research Associate

*Leon Nesbitt Henderson, M.A., Associate Professor of Education

Joseph M. Leps, Ed.D. (Columbia), Acting Research Associate

John Haynes Moorman, M.A.E., Associate Professor of Business Education

Hazen Edward Nutter, M.A., Associate Professor of Curriculum Research and Chairman, Operating Committee, The University of Florida Sloan Project in Applied Economics

Joseph Gordon Smith, M.A.E., Junior Itinerant Teacher Trainer in Agricultural Education

L. E. Jones, M.A., Consultant, School Services

Clara McDonald Olson, Ph.D. (Peabody), Writer and Visitor, The University of Florida Sloan Project in Applied Economics

Thomas Whitney Strickland, B.S.E., With High Honors, Assistant Professor of Industrial Arts Education

Lillian Page Hough, M.A., Instructor in Curriculum Research, The University of Florida Sloan Project in Applied Economics

TEACHERS IN THE P. K. YONGE LABORATORY SCHOOL

Margaret White Boutelle, M.A.

Loris Rood Bristol, M.A.

Eunice Zipperer Calhoun, B.A.E., With Honors

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*On leave of absence.

Cleva Josephine Carson, M.S.
Jeanette Benson Cross, R.N.
Sarah Grace Dickinson, B.A., B.S. in L.S.
Charles Edgar Doe, Curator of Ornithology and Director of the Doe Museum
Charlotte Dunn, M.A.
Charles Livingston Durrance, Jr., M.A.E.
William Lewis Goette, M.A.E.
Eleanor Kuhlman Green, M.A.E.
Rosella Lillian Herman, B.A.E., With Honors
Verna Miller Joines, B.S. in Home Economics
*Kenneth Paul Kidd, M.A.
*Eugene Kitching, M.A.E.
Gladys O'Neal Laird, M.A.E.
Floy McCall McEachern
*Ida Ruth McLendon, M.A.E.
Lillian Irma Maguire, M.A.
Ingorie Vause Mikell, B.M.
Jean Oltman Mitchell, M.A.E.
Lillian Taylor Osteen, B.A.
Ruth Beatrice Peeler, M.A.
Billie Knapp Stevens, M.A.
Grace Adams Stevens, M.A.
*Robert Olin Stripling, M.A.E.
Elizabeth Swords, in charge of Cafeteria
Jean Pieper Tison, M.A.E.
Vidal Trujillo, M.A.
Martha Twitty, B.S.E.
Madge Wilson, M.S.

SUBSTITUTE TEACHERS IN THE P. K. YONGE LABORATORY SCHOOL

Dorothy Browning Kelly, B.A.
Henrietta Helen Lackey, B.A.
Dorothy Carol Stevens, B.A.

GENERAL STATEMENT

The College of Education considers itself a service institution for the state. It has as its main purpose the development and the improvement of teaching in all its branches. Through courses in education, it offers opportunities for study and professional growth; through the Bureau of Educational Research it offers opportunities for research and the investigation of all kinds of school problems; through the P. K. Yonge Laboratory School it offers opportunities for observation and participation in classroom instruction and the study of problems of child development; and through the Florida Curriculum Laboratory and other facilities it offers opportunities to total school faculties and individual teachers for improving their educational programs. There are constantly many valuable contacts with the public school officials, teachers, and administrators which afford ample facilities for professional improvement.

*On leave of absence.

THE P. K. YONGE LABORATORY SCHOOL

The P. K. Yonge Laboratory School was established by the State of Florida primarily as a research and experimental center. As as integral part of the University, it includes the following staff and facilities: Kindergarten and teachers, six year elementary school and teachers, six year high school and teachers, a school psychologist, a school nurse, and, in the fields of music, art, and health and physical education, a staff which works in all divisions of the school. As a research unit it provides facilities for experiments, investigations, and many analytical studies. All staff members participate in this work. The school has three other purposes, viz., to direct the education of the children in the school, to serve as a laboratory in the pre-service education of teachers, and to serve the schools of the state in an in-service program of teacher education.

THE BUREAU OF EDUCATIONAL RESEARCH

The Bureau of Educational Research is an integral part of the educational facilities of the College of Education. It offers many opportunities for research and investigation of school problems, and its facilities and services may be utilized in a wide variety of activities. It works with the Laboratory School and College of Education in experiments and investigations; it works with schools of the state where its services are needed; it assists other University agencies in projects undertaken by the University; it works with the State Department of Education and Florida Education Association in projects and research of interest to the state as a whole; it cooperates with out-of-state institutions in certain types of projects; it cooperates with several other agencies, such as the United States Office of Education, and the National Educational Association; and it supplies a variety of materials to schools and individual teachers of the state.

THE FLORIDA CURRICULUM LABORATORY

The Florida Curriculum Laboratory is located on the third floor of the P. K. Yonge Building. This Laboratory is made possible through the cooperation of the Florida State Department of Education, the College of Education, and the P. K. Yonge Laboratory School. The purpose of the Florida Curriculum Laboratory is to serve all individuals and groups of individuals who are interested in improving the learning experiences of Florida girls and boys. It provides consultative services, duplicates materials for curriculum work and educational meetings, and maintains a large collection of books and other curriculum materials. This collection contains approximately 16,000 pieces of materials, including professional books, textbooks, pamphlets, bulletins, periodicals, and materials from state and city school systems. Its facilities and resources make the Florida Curriculum Laboratory especially valuable as a work-center for persons engaged in curriculum improvement. It is used extensively by Florida educators in the preparation of curriculum bulletins and serves as a nucleus for the University of Florida Summer Workshops. The Laboratory seeks to assist individual teachers in service as well as committees and total school faculties. It welcomes inquiries concerning problems that face in-service teachers and earnestly endeavors to provide suggestions that may be useful.

THE UNIVERSITY OF FLORIDA SLOAN PROJECT IN APPLIED ECONOMICS

Through the cooperation of the College of Education, the School of Architecture and Allied Arts, the College of Engineering and assisting public schools and with the assistance of grants-in-aid from the Alfred P. Sloan Foundation, Inc., the University of Florida has undertaken an experiment in applied economics. The object of this experiment is to discover: First, whether school instruction in concepts and methods of improving housing

conditions will actually improve housing conditions in the community, and second, to measure quantitatively the extent of such change, if any. Emphasis is placed primarily on the improvement of housing conditions with the lower-income group of the white population. The experiment is administered and directed by the University through an Operating Committee of the Project. The State Department of Education has approved the Project and assists in its development. Original plans were made in the early part of 1940 and the project was initiated during the school year of 1940-41. Funds for the Project, furnished through grants-in-aid by the Alfred P. Sloan Foundation, Inc., are limited to the preparation of instructional materials and plans for use in the assisting schools and are not available for expenditure in the communities. Considerable instructional materials have already been prepared for use in these schools.

THE INTER-AMERICAN CENTER

The College of Education in cooperation with the United States Office of Education has established at the University of Florida an Inter-American Demonstration Center for elementary and secondary schools. Contributing agencies are the United States Office of Education, the Florida State Department of Education, and the College of Education and Institute of Inter-American Affairs of the University of Florida. The purpose of the Center is to assist interested schools in developing instructional materials on Inter-American civilizations, to provide opportunities for the exchange of materials and ideas with other Centers, and to introduce these into the educational program of other schools of Florida. The Center is directed by a supervisory committee, appointed by the Dean of the College of Education, and administered by the executive secretary of the committee who is known as the Supervisor of the Center. It is hoped that the work of this Center will lead to a better understanding of and a better attitude toward our American Neighbors.

THE DOE MUSEUM

The Doe Collection and Natural Science Museum is one of the most interesting and unique parts of the University. It is located in the P. K. Yonge Laboratory School, occupying the whole third floor of the north wing. It contains one of the largest bird collections and the most complete collection of birds' eggs in North America. It has 1,250 species and sub-species of eggs, which in their series represent 60,000 eggs. Eggs of 15 kinds of birds now extinct, are in the collection. In addition to the collection of birds and birds' eggs, the Natural Science Museum also contains a growing collection of marine shells, land snails, and about 2,000 butterflies. This museum is used for instructional purposes with children and as a demonstration unit for the use of museum materials in other schools.

LIBRARY FACILITIES

Library facilities of the College of Education include the Main Library which houses over 191,000 books, the P. K. Yonge Laboratory School Library, the Curriculum Laboratory Library, and the Joseph R. Fulk Library of School Administration.

TEACHERS' CERTIFICATES

Graduates of the College of Education are granted certificates by the State Department of Education without further examination provided that during their college careers they have complied with the regulations of the State Board of Education covering the certification of teachers. These regulations are fully described in a bulletin on the certification of teachers published by the State Department of Education in Tallahassee and it is

imperative that students who expect to be certificated familiarize themselves with these regulations. In general, they require that an applicant for certification shall have a background of at least six semester hours in each of the fields of English, social studies, and the natural sciences; that he shall have taken three-twentieths of his work, or eighteen semester hours, in education, at least six of which shall have been in student teaching; that he shall have specialized in the subjects to be entered on the face of the certificate; and that he shall have met certain other requirements more fully described in the latest bulletin on the certification of teachers. Applications for the certificate should be made immediately after graduation and should be addressed to Dr. Colin English, State Superintendent of Education, Tallahassee, Florida.

EXTENSION OF TEACHERS' CERTIFICATES

Students enrolled in the College of Education, upon recommendation of the faculty, may receive an extension of one year on any or all valid Florida certificates subject to extension.

CORRESPONDENCE COURSES

Not more than one-fourth of the semester hours which are applied toward a degree, nor more than 12 of the last 36 semester hours which are earned toward a Bachelor's degree, may be taken by correspondence study or extension class. While in residence, the student will not be allowed to carry on correspondence work without the consent of the Dean; this permission will be granted only in exceptional cases. Not more than 9 semester hours may be earned by correspondence study during the summer vacation period.

REQUIREMENTS FOR ADMISSION

Students entering the College of Education from the University College will be required (1) to present a certificate of graduation from that college, (2) have credit in the specified pre-professional courses for the curriculum of their choice (see curricula below), (3) to be recommended for admission to the Upper Division, and (4) to have the approval of the Committee on Admissions of the College of Education.

Students entering from other institutions must present college credit equivalent to graduation from the University College, as determined by the Board of University Examiners, and have the approval of the Committee on Admissions of the College of Education.

GRADUATION WITH HONORS AND HIGH HONORS

For graduation *With Honors*, a student must earn on Honor Point average of at least 3.2 in the work of the Upper Division. For graduation *With High Honors*, a student must meet the following requirements: (1) Obtain an Honor Point average of at least 3.5 in the work of the Upper Division; (2) Obtain the recommendation of the Faculty Committee which has supervised a special project or program of work for the student. A copy of detailed regulations governing graduation *With High Honors* may be obtained from the Office of the Dean.

DEGREES AND CURRICULA

DEGREES

The degrees Bachelor of Arts in Education and the Bachelor of Science in Education are offered in the College of Education. For either degree the student is required to complete 66 semester hours with an average of C or higher, at least 18 resident hours of which

must be in Education and the remaining hours of which will be elected by the student in conference with an adviser. In every case, the student must complete at least 24 hours in a subject or field of concentration to be eligible for graduation.

LEADING TO THE DEGREE BACHELOR OF ARTS OR BACHELOR OF SCIENCE IN EDUCATION*

To register for this curriculum, students must have completed the following courses while registered in the University College or must include them as part of the work of the Upper Division: En. 241, Sy. 241, Psy. 201.

Junior Year

	Semester 1st-2nd
En. 305—Development and Organization of Education	(0 - 3)
En. 385-386—Child Development-Educational Psychology	(3 - 3)
En. 397-398—Secondary School Curriculum and Instruction	(3 - 3)
1st Area of Concentration	(3 - 3)
2nd Area of Concentration	(3 - 3)
Limited Electives	(6 - 3)
Total	(18-18)

*For the degree of Bachelor of Science in Education by this curriculum the field of concentration must be in the natural sciences or in mathematics.

Senior Year

	Semester 1st-2nd
En. 403—Principles and Philosophy of Education	(3 - 0)
En. 421-422—Student Teaching	(3 - 3)
Limited Electives	(0 - 3)
1st Area of Concentration	(6 - 6)
2nd Area of Concentration	(3 - 3)
Total	(15-15)

Courses are suggested below for special areas of concentration. Suggestions for other fields not listed may be obtained through conference with the dean of the College of Education.

English

C-3		—Freshman English	8
Eh.	399	—Introduction to the Study of Literature	3
Eh.	223	—World Literature	3
or			
Eh.	224	—World Literature	
Eh.	401, 402	—American Literature	6
Eh.	217-218	—English Literature	6
Eh.	301	—Shakespeare	3
or			
Eh.	302	—Shakespeare	
Eh.	305	—Modern English Grammar	3
or			
Eh.	306	—Modern English Grammar	
Sch.	420	—Teaching of Functional Speech	3
			35

Guidance and Counseling in Public Schools

En.	317	—Measurement and Evaluation of School Practices	3
or			
Psy.	405	—Psychological Measurement	3
or			
Psy.	406	—Psychological Tests	3
En.	462	—Guidance and Counseling	3
Psy.	304	—Experimental Psychology	3
Psy.	309	—Personality Development	3
Psy.	310	—Abnormal Psychology	3
Psy.	401	—Readings in Experimental Psychology	3
			18

Psy. 201—General Psychology is prerequisite to each of these courses.

Mathematics

C-42		—Fundamental Mathematics	3
Ms.	325	—Advanced General Mathematics	3
Ms.	431	—College Geometry	3
Ms.	568	—History of Elementary Mathematics	3
Ms.	225	—Arithmetic for Teachers	3
Ms.	311	—Advanced College Algebra	3
			18

Science

C-6		—Biological Sciences	6
Bly.	101-02	—General Animal Biology	6
Bly.	133	—Plants and Animals of Florida	3
Ps.	101-02	—General Physics	8
Ps.	103-04	—Laboratory for Ps. 101-102	4
Cy.	101-02	—General Chemistry	8
			35

The following additional courses are recommended for science teachers:

Bly.	134	—The Life of the Inland Waters of Florida	3
Cy.	201	—Analytical Chemistry	4

For those who have not had C-2, Physical Sciences, the following additional courses are recommended:

Aty.	241	—Descriptive Astronomy	4
Gy.	303	—General Geology	3

Social Studies

C-11, C-12		—American Institutions	8	
Es.	205-206	—Economic Foundations of Modern Life	6	
Hy.	241	—History of the Modern World	4	
Scl.	101-2	—Survey of American History	6	
or				
Hy.	331-2	—Survey of American History		
Sy.	241	—Sociological Foundations of Modern Life	4	4 or 3
or				
Sy.	490	—The South Today	3	
Pcl.	241	—Political Foundations of Modern Life	4	4 or 3
or				
Pcl.	314	—American Government and Politics	3	
Gpy.	387	—Principles of World Geography	3	
or				
Es.	304	—Regional World Geography		
			34 or 32	

Additional courses in the social studies when possible.

FOR STUDENTS WHOSE MAJOR FIELD OF CONCENTRATION IS AGRICULTURAL EDUCATION

To register in this curriculum, students must have completed the following courses while registered in the University College or must include them as a part of the work of the Upper Division:

Acy.	125-126	—Agricultural Chemistry	8
Ay.	321	—Field Crops	3
Al.	211	—Principles of Animal Husbandry	3
Bty.	303-4	—General Botany	6
or			
Bly.	101-2	—General Animal Biology	6
En.	303	—Methods in Vocational Agriculture	3
En.	306	—Vocational Agriculture	3

Junior Year

Courses		First Semester	Credits
Ag.	303	—Farm Shop	3
Dy.	311	—Principles of Dairying	4
Sls.	301	—Soils	3
		Electives in Agriculture	2
		Electives in Education	3
		Electives	2
			17

Courses		Second Semester	Credits
As.	306	—Farm Management	3
Ag.	407	—Farm Shop Power Equipment	3
HPl.	387	—Health Education	3
He.	312	—Vegetable Gardening	3
He.	316	—Citrus Culture	3
		Electives	2
			17

Senior Year

En.	409	—Supervised Teaching in Vocational Agriculture	3	As.	308	—Marketing	3
En.	411	—Special Methods in Vocational Agriculture	2	En.	410	—Supervised Teaching in Vocational Agriculture	3
He.	429	—Ornamental Horticulture	3	En.	412	—Special Methods in Vocational Agriculture	2
Py.	415	—Poultry Management	3	Ey.	314	—Principles of Economic Entomology	4
Vy.	401	—Livestock Diseases and Farm Sanitation	2	Sls.	302	—Soil Fertility	3
		Electives in Agriculture	2			Electives	2
		Electives	2				
			17				17

FOR STUDENTS WHOSE MAJOR FIELD OF CONCENTRATION IS BUSINESS EDUCATION

To register for this curriculum, students must have completed the following courses while registered in the University College or include them as a part of the work of the Upper Division:

BEn.	81	—Elementary Typewriting	2	Bs.	211-212	—Elementary Accounting	6
BEn.	91	—Elementary Shorthand	2	En.	241	—Introduction to Education	3
Es.	205-206	—Economic Foundations of Modern Life	6	En.	386	—Educational Psychology	3

Junior Year

Courses		First Semester	Credits	Courses		Second Semester	Credits
Bs.	311	—Accounting Principles	3	BEn.	94	—Stenography	4
*Es.	321	—Financial Organization of Society	3	Bs.	312	—Accounting Principles	3
En.	397	—Secondary School Curriculum and Instruction	3	*Es.	322	—Financial Organization of Society	3
HPl. or HPl.	363 364	—Teaching Physical Education in the Secondary School	3	En.	398	—Secondary School Curriculum and Instruction	3
		Electives	6			Electives	5
			18				18

Senior Year

Courses		First Semester	Credits	Courses		Second Semester	Credits
Bs.	401	—Business Law	3	*Bs.	402	—Business Law	3
En.	401	—School Administration	3	En.	422	—Student Teaching	3
En.	421	—Student Teaching	3	HPl.	387	—Health Education	3
En.	462	—Guidance and Counseling	3			Electives	6
		Electives	3				
			15				15

Each student electing this program should meet certification requirements in some other field.

FOR STUDENTS WHOSE MAJOR FIELD OF CONCENTRATION IS HEALTH AND PHYSICAL EDUCATION

To register for this curriculum, students must have completed the following courses while registered in the University College or must inelude them as a part of the work of the Upper Division:

En.	241—Introduction to Education	3
HPl.	131, 132, 231, 232—Theory and Practice	12

*Subject to the approval of the Dean, other courses in Economics and Business Administration may be substituted.

Junior Year

Courses		First Semester	Credits	Courses		Second Semester	Credits
En.	397	—Secondary School Curriculum and Instruction	3	En.	398	—Secondary School Curriculum and Instruction	3
En.	385	—Child Development	3	En.	386	—Educational Psychology	3
HPl.	381	—Advanced Football	3	HPl.	382	—Advanced Track	2
HPl.	383	—Games, Minor Sports and Gymnastics	3	HPl.	384	—Games, Minor Sports and Gymnastics	3
HPl.	385	—History and Principles of Physical Education	2	HPl.	386	—Organization and Administration of Physical Education	2
		Elective	3			Elective	3
			17				16

Senior Year

En.	421	—Student Teaching	3	En.	422	—Student Teaching	3
HPl.	481	—Advanced Basketball	2	HPl.	482	—Advanced Baseball	2
HPl.	462	—Community Recreation	2	HPl.	484	—Tests and Measurements in Physical Education	2
HPl.	485	—Applied Anatomy, Physiology and Kinesiology	3	HPl.	486	—Personal and Community Hygiene	3
HPl.	487	—Corrective Physical Education	2	HPl.	488	—Conditioning of Athletes and Care of Injuries	2
		Elective	5			Elective	4
			17				16

FOR STUDENTS WHOSE FIELD OF CONCENTRATION IS INDUSTRIAL ARTS EDUCATION

To register for this curriculum, students must have completed the following courses while registered in the University College or must include them as a part of the work of the Upper Division:

En.	241	—Introduction to Education	(3-0)
In.	111-112	—Mechanical Drawing	(2-2)
In.	211-212	—General Shop	(2-2)
And one of the following			
Ms.	105-106	—Basic Mathematics	(4-4)
Ps.	101-102; 103-104	—Elementary Physics and Laboratory	(5-5)
Cy.	101-102	—General Chemistry	(4-4)

Junior Year

Courses		First Semester	Credits	Courses		Second Semester	Credits
En.	462	—Guidance and Counseling	3	En.	386	—Educational Psychology	3
HPl.	363	—Teaching Physical Education in the Secondary School		HPl.	387	—Health Education	3
or				In.	305	—Design and Construction	3
HPl.	364		3	In.	306	—General Metal Shop	3
In.	301	—Sheet Metal Drafting	3			Electives	6
In.	302	—General Shop	3				
		Electives	6				
			18				18

Senior Year

En.	421	—Student Teaching	3	En.	422	—Student Teaching	3
En.	472	—Methods and Organization in Industrial Arts	3	In.	404	—Farm Motors	3
In.	401	—Architectural Drawing	3	In.	412	—General Machine Shop and Metal Work	3
In.	411	—General Machine Shop and Metal Work	3			Electives	6
		Electives	3				
			15				15

COLLEGE OF ENGINEERING

FACULTY

**Joseph Weil, B.S.E.E., M.S., Dean and Director, Engineering and Industrial Experiment Station and Professor of Electrical Engineering

CHEMICAL ENGINEERING

Walter H. Beisler, D.Sc. (Princeton), Head Professor of Chemical Engineering
**Howard N. Calderwood, Ph.D. (Wisconsin), Research Engineer
**Ralph A. Morgen, Ph.D. (California), Professor of Chemical Engineering and Assistant Director, Engineering and Industrial Experiment Station
**William C. Morris, Ph.D. (Western Reserve), Research Engineer
**Randolph C. Specht, B.S.Ch.E., Research Engineer
**Robert D. Walker, Jr., B.S., Research Engineer
**Seymour S. Block, Ph.D. (Pennsylvania State), Associate Research Engineer
**Bruce W. Thorngate, B.S., Associate Research Engineer
**William D. May, B.S., M.S., Assistant Research Engineer

CIVIL ENGINEERING

Percy L. Reed, C.E., M.S., Head Professor of Civil Engineering
**Earle B. Phelps, B.S., Research Engineer (Temporary)
**David L. Emerson, B.S., M.S., Associate Research Engineer
William A. Gager, Ph.D. (Peabody), Acting Associate Professor of Civil Engineering
Gerald M. Keith, S.B., M.S., C.E., Acting Associate Professor of Civil Engineering
*William L. Sawyer, B.S., M.S., Associate Professor of Civil Engineering

ELECTRICAL ENGINEERING

**Palmer H. Craig, Ph.D. (University of Cincinnati), Head Professor of Electrical Engineering and Supervisor War Research Laboratory
***Ralph E. Carroll, Research Engineer
**Paul M. Tedder, B.S.E.E., Research Engineer
***John W. Wilson, B.S.E.E., M.S., Associate Professor of Electrical Engineering
***Alfred S. Khouri, B.S.E.E., Associate Research Engineer
*Stephen P. Sashoff, E.E., M.E., Associate Professor of Electrical Engineering
Edward F. Smith, B.S.E.E. E.E., Associate Professor of Electrical Engineering
***Charles A. Moreno, A.B.E.E., Assistant Professor of Electrical Engineering. (Resigned January 6, 1945.)

INDUSTRIAL ENGINEERING

Philip O. Yeaton, B.S., S.B., Head Professor of Industrial Engineering
Silas K. Eshleman, M.A., S.M., M.E., E.E., J.D., Associate Professor of Industrial Engineering
***Robert G. Beasley, B.S.E.E., Acting Assistant Professor of Industrial Engineering

MECHANICAL ENGINEERING

NEWTON C. EBAUGH, B.E. in M. and E.E., M.E., M.S., Head Professor of Mechanical Engineering

WILLIAM W. FINEREN, M.E., Professor of Mechanical Engineering (Special Status)

EDGAR S. WALKER, Colonel, U. S. Army (Retired), B.S., U. S. Military Academy, Professor of Drawing (Special Status)

***ROBERT A. THOMPSON, B.S.M.E., M.S., Associate Professor of Mechanical Engineering

**WILLIAM T. TIFFIN, B.S.M.E., M.S.M.E., Associate Research Engineer

**NORMAN BOURKE, A.B., B.S., M.S.M.E., B.S.M.E., M.E., Acting Assistant Professor of Mechanical Engineering

EDWIN S. FRASH, B.S. in M.E., M.E., Assistant Professor of Mechanical Engineering

***SAM P. GOETHE, B.S.M.E., M.S., Research Engineer

***JAMES T. LEGGETT, B.S.M.E., M.S., Assistant Professor of Mechanical Engineering

GENERAL STATEMENT

The College of Engineering awards the following Bachelors' degrees:

Bachelor of Chemical Engineering
Bachelor of Civil Engineering
Bachelor of Electrical Engineering
Bachelor of Industrial Engineering
Bachelor of Mechanical Engineering

All curricula offered in the College of Engineering, University of Florida, have been approved by the Engineers' Council for Professional Development.

Candidates for the above degree may depart from the regular curricula in order to secure specialization in the fields of electronics, aeronautics and public health engineering.

A publication *Engineering as a Career* has been prepared to give an introductory insight into the profession of engineering and gives valuable information pertaining to the various fields covered by the principal branches of engineering. Copies of this booklet are available upon request.

Upon entering the University, each student who contemplates studying engineering should confer with the Dean of the College of Engineering. The Dean and the various department heads are eager to confer with students pertaining to their studies and will assist them in planning their schedules.

The curricula of the College of Engineering are planned to give instruction in the technical aspects of professional engineering, and in the social and economic phases of modern industrial life. They are not designed to turn out technical experts but rather to give students that education which will later enable them to qualify as Professional Engineers after they have had the requisite practical experience.

Subjects basic to Engineering are secured in the University College. In the Engineering College he is given instruction in professional engineering courses and is encouraged to utilize the time allowed for electives for productive activity in non-technical courses. The individual characteristics of the student are given consideration and he is encouraged to develop his initiative and imagination, to devote his spare time to special technical problems in the laboratory, to study the history and trend of engineering practice as related to social

*On leave of absence.
**Employed either part time or wholly by Engineering and Industrial Experiment Station.
***Employed either part time or wholly by War Research Laboratory of the Engineering and Industrial Experiment Station.

and economic developments, and to coordinate his efforts to produce an educated man well grounded in the fundamentals of engineering practice and well equipped to enter the industrial field and to advance himself in his chosen profession.

The student may select curricula which will give him some specialization in the fields of chemical, civil, electrical, industrial and mechanical engineering, the Bachelor's degree being awarded on the basis of such specialization. By choosing elective courses in specialized fields of radio, aeronautics, air conditioning, management, design, etc., a still further degree of specialization can be secured, if he so desires. For each of the curricula, close coordination between departments gives broad engineering training; and systematic planning gives the necessary detailed factual information required of engineering graduates.

Through the facilities of the Engineering and Industrial Experiment Station close contact is maintained with the industries of the state and students interested in doing research work on individual problems may have an opportunity to do so in cooperation with the staff of the Station.

In order to assist as much as possible in the war effort the College of Engineering has adjusted its program and is now offering courses in the Summer Session. Students can therefore accelerate their program and can graduate in three years or less. This is brought about, not by the curtailment of necessary parts of the curricula, but primarily by attendance at summer school. In the accelerated program the order in which courses are taken is most important. In order to avoid difficulties with prerequisites students should secure detailed information directly from the Office of the Dean.

FLORIDA INDUSTRIES' COOPERATIVE PLAN

Several of Florida's industries, under a cooperative arrangement with the College of Engineering, will employ Florida men in industry at regular intervals during the students' course at the University. Students are eligible for cooperative employment who are candidates for an engineering degree and who have shown that they are satisfactorily prepared scholastically; such as, standing in the upper 25% of their high school class or having satisfactory University grades.

During the months of November or March any student may file an application with the Dean of the College of Engineering for assignment in industry. Placement will depend upon the openings available and the industrial experience of the applicant, his scholarship and personality. Applications may be accepted from men already in industry who wish to complete their college courses and need college credit of one year or more towards a degree.

After assignment to an industry, a student alternates with his partner each college session. The periods are: February 1 to May 31; June 1 to August 31; and September 1 to January 31. There are two men on each team so that one man is in the University while his partner is in industry. During each period in Industry, each student is paid for his work. This pay should cover necessary living expenses.

Any industry willing to enter or desirous of entering the Florida Industries' Cooperative Plan should write to the Dean of the College of Engineering, University of Florida.

LABORATORY FACILITIES

The laboratories of the College of Engineering enable the students to secure practical experience in engineering testing and in general laboratory procedure. Well equipped laboratories are available not only for undergraduates but for research in various fields.

Students who in general show that they may benefit by additional laboratory work and who have the necessary educational experience, may be given special permission to carry on individual experimentation in research.

CHEMICAL ENGINEERING LABORATORIES

Since chemical engineering is concerned with the development and application of manufacturing processes in which chemical or certain physical changes of materials are involved, the chemical engineering laboratories are designed to demonstrate how this is accomplished.

The *Unit Operations Laboratory* is equipped to teach the student the basic operations which are the corner stones of chemical engineering. Included in the facilities of the laboratory is equipment designed and built for the study of the fundamental principles of the following unit operations on a semi-plant scale: distillation, filtration, centrifuging, heat transfer, gas absorption, evaporation, drying, crushing and grinding, fluid flow, mixing, classification of solids and conveying.

The *Technical Laboratory* contains the usual equipment for carrying out chemical experiments on a smaller scale than in the *Unit Operations Laboratory.* In addition it contains certain specialized equipment such as viscosimeters, flash testers, gas analysis equipment, calorimeters, control instruments, and calibration apparatus.

Students are also required to perform experiments on equipment not located in the chemical engineering laboratories. This includes air conditioning, humidity and temperature control tests on other equipment which is part of the University plant.

CIVIL ENGINEERING LABORATORIES

The Civil Engineering Department has laboratories equipped for work in Surveying, Hydraulics, Sanitary Engineering, Materials Testing, and Hydrology.

The *Surveying Instrument Room* contains the following equipment: Repeating theodolite, precise levels, base-line measurement apparatus, plane tables, transits, levels, precision pantagraph, current meter, and smaller pieces of equipment necessary for field and drawing room work in elementary and higher surveying.

The *Hydraulic Laboratory*, one of the largest and most modern of its type, occupies the first and second floors of the new Hydraulic Laboratory building completed in 1939. The equipment is of modern design and extensive enough so that the theoretical studies of the classroom may be verified in the laboratory. In addition there are facilities for research on hydraulic problems and a complete water treatment pilot plant including a rapid sand filter. The water is recirculated from several storage tanks located in the building. The total capacity of the system is 100,000 gallons and the maximum head available, using the constant head overflow tank on the roof, is fifty feet. Among the principal items of equipment are a 16 inch vertical propeller pump which delivers 4500 g.p.m. at 12 ft. head, a 10 x 12 inch horizontal centrifugal pump which delivers 1760 g.p.m. at 32 ft. head, an air lift pump, hydraulic ram, pelton impulse wheel, reaction turbine, and apparatus for the study and measurement of flow in pipes and open channels.

The *Materials Testing Laboratory* contains one four-hundred-thousand-pound capacity high column Riehle testing machine equipped for both tension and compressive tests; one fifty-thousand-pound low-column machine and apparatus for the usual physical and chemical tests on brick, wood, concrete, steel, cement, asphalt, tars, and oils.

The *Sanitary Engineering Laboratory* is located on the third floor of the new Hydraulic Laboratory building. It contains necessary apparatus and equipment for making the

routine tests in connection with the design and operation of water, sewage, and industrial waste treatment plants and has facilities for graduate work and research in these fields. Research on a semi-plant scale can be conducted at the University trickling filter disposal plant which was designed for the dual purpose of laboratory experiments on its operation and for the practical treatment of the campus sewage and laboratory wastes.

The *Hydrological Laboratory* contains anemometers, rain gauges, recording barometers, recording thermometers, recording hygrometer, water level recorders, and other apparatus useful in illustrating the fundamentals of hydrology as applied to engineering design and construction.

ELECTRICAL ENGINEERING LABORATORIES

The *Dynamo Laboratory* contains dynamo electrical machinery of various types. Motor-generators are used for securing alternating currents of a wide range of voltages and frequencies and for conversion to direct current. Other equipment includes mercury arc rectifier units, miscellaneous battery charging equipment, automotive testing equipment, transformers, electro-dynamometers, and a wide variety of other electrical machinery.

The *Precision Laboratory* contains special devices and instruments for calibrating and standardizing work and is available to the utilities of the State for the solution of special problems. In addition to the instruments of the *Precision Laboratory*, there is a double sine wave alternator for special testing purposes. Miscellaneous instruments of various types, including oscillographs and a klydonograph, are available for performing tests on miscellaneous electrical equipment.

The *Electronics Laboratories* are equipped with the most modern devices in this field. Practically every type of modern Electronics equipment is represented. In these laboratories will be found a special panel board incorporating cable terminals, line fault equipment, transmission measuring equipment, audio and high frequency oscillators, repeators, filters, networks, bridges and a large number of special devices including cathode ray oscilloscopes, field strength measuring equipment, automatic signal recorder, miscellaneous receiving equipment, static recorders, radio goniometers, U.H.F. signal generators, electronic switches, precision wave meters, radio frequency bridges, square wave generators, Klystron tubes, Chanalyst analyzers, numerous short wave transmitters, special directional type receivers designed by Dr. Watson Watt and supplied by the Navy, artificial line bays, a complete television unit including "live" pickup, transmitters, receivers, precision crystal-control, standards of frequency and a large variety of Thyratrons, Ignitrons and Kathetrons.

Radio Station WRUF, a 5000-watt Western Electric transmitter, operating at 850 kilocycles, cooperates with the laboratory in courses on radio station operation. These courses are open to students who have attained sufficient knowledge to benefit by this work. Station W4XAD, a special experimental radio-telephone station, is licensed at 600 watts for frequencies of 2398, 4756, 6425, 8655, 12,862.5, and 17,310 kilocycles, and is used for experimental work in the field of short wave radio communications.

The *Industrial Electronics Laboratory* is equipped with modern type of electronic equipment for a wide variety of industrial uses. This includes a large water-cooled ignitron rectifier, a general purpose timer, light sensitive control units, electronic synchronizer, an electronic high frequency dielectric-heating and induction-heating unit, electronic generator voltage regulator, tube-type D. C. motor speed regulator and the latest model industrial X-ray equipment. This laboratory also houses an electronic "Mot-O-Trol" adjustable speed device, and a complete resistance welder with electronic control, including tube contactor, several synchronous and non-synchronous weld timers, heat control attachment, and resist-

ance welder. A "Precipitron" electrostatic air cleaner is included, as well as a wide variety of ignitrons, current regulator tubes, thyratrons, and kenotrons. The above equipment is all of the latest design and allows a detailed study of the theory and operation of the most modern form of industrial electronic equipment.

The *Special Tube Building Laboratory* comprises complete glass-working and glass-blowing facilities for making practically any experimental radio type tube. The equipment is capable of handling glass-to-metal seals in sizes up to about 3″ in diameter. Complete evacuation equipment is also included, with Cenco and Arrow primary pumps, two-stage mercury diffusion pumps, liquid air traps, two Cenco McLeod gauges, Pirani gauges, "trolley exhaust" (baking ovens), two high frequency bombarders; also complete "fires" including cross fires, ribbon burners, portable jets and seal-off burners, and a glass turning lathe for sealing the large diameter glass-to-glass seals. This laboratory also contains two hydrogen ovens, for hydrogen-firing metal parts of tube interior before assembly, a special oxide-coating gun for coating cathodes, a spot welder for assembly of tube parts, and a grid winding machine.

Hurricane Research Building. The University owns two small buildings located at some distance from nearby buildings, in which is housed equipment for hurricane location research and similar original investigations in the field of Radio and Electronics.

INDUSTRIAL ENGINEERING LABORATORY

The *Motion and Time Study Laboratory* affords each student an opportunity to study industrial projects. Through the use of the stop watch, motion picture camera, and allied motion economy equipment, he applies alternatives to analyze and to improve the processes studied.

MECHANICAL ENGINEERING LABORATORIES

The laboratories of the Mechanical Engineering Department include facilities for drawing, design, and production of machinery and equipment; and for the study of the performance of machinery and allied apparatus.

Modern drafting rooms are provided, which are capable of taking care of approximately 100 students.

Laboratory facilities for studying the production of machinery include equipment for casting, forging, welding, and machining of metals, and various types of woodworking machines.

Extensive equipment is available for the study of the strength and behavior of wood, cement, concrete, metals, and other materials used in engineering structures and machines. Coupled with this is the *Metallography Laboratory*, which is arranged for the study of internal crystal structure of these materials.

Facilities are provided for studying the performance and other characteristics of steam engines, turbines, boilers, automobile engines, airplane engines, Diesel engines, refrigeration equipment, air conditioning apparatus, airplanes, and auxiliary equipment used with these machines.

The aerodynamic laboratory is equipped with three wind tunnels for studying air flow, airfoil characteristics, and the performance of aircraft models. Supplementing the model tests, are tests of full size airplanes under various conditions of actual flight.

Basic engineering instruments are available for use in connection with special studies and research in any of the foregoing fields.

MASTER OF SCIENCE IN ENGINEERING

The degree of Master of Science in Engineering may be earned through the Graduate School, see page 121.

PROFESSIONAL DEGREES

The professional degrees of Civil Engineer, Chemical Engineer, Electrical Engineer, Industrial Engineer, and Mechanical Engineer will be granted only to graduates of the College of Engineering of the University of Florida who have:

(a) Shown evidence of having satisfactorily practiced their profession for a minimum of five years following receipt of the Bachelor's degree, during the last two years of which they shall have been in responsible charge of important engineering work. A graduate who is a registered engineer in the State of Florida will be accepted as satisfying this requirement.

(b) Presented a thesis showing independence and originality and of such a quality as to be acceptable for publication by the technical press or a professional society.

(c) Satisfactorily passed an examination at the University upon the thesis and professional work.

A candidate for a professional degree must make application to the Dean of the College of Engineering prior to March 1 of the year in which he expects to have the degree conferred. He must also make application to the Registrar in accordance with the dates specified in the University Calendar. If the candidate appears to satisfy requirements listed in section (a) above, the Dean will form a committee of which the head of the department in which the degree is to be earned is chairman. This committee shall satisfy itself that the candidate has fulfilled all requirements for the degree and report its recommendation to the faculty of the College of Engineering which will have final authority to recommend to the President and the Board of Control the conferring of the degree.

REGULATIONS

Honor Student Designation.—A student who is an applicant for the designation of Honor Student in the College of Engineering must have a certificate of graduation from the University College or its equivalent, and shall have earned at least a B average in his academic work, which must include:

Ml. 181-182
Ps. 205-206-207-208
Cy. 101-102
Ms. 353-354
Departmental prerequisites as shown on page 106.

To be considered for classification as an honor student the applicant must file an application in proper form with the Dean of the College of Engineering before October 15 and March 15 of each semester. The Dean will then notify the student to appear before a committee which shall have the power to examine the applicant and to pass upon this application.

Honor students, as long as they maintain their high scholastic standing, may be granted by the Dean, upon recommendation by the Head of the Department in which the student is registered, the following privileges:

1. Deviation from the prescribed curricula.

2. Permission to be absent from scheduled classes, when the absence is justifiable from the professional point of view.

Graduation with Honors.—To graduate with honors, a student must have graduated from the University College with honors and completed the work of the Upper Division with an average of 3.0 (B) or higher, or in lieu of graduation from the University College with honors, have completed the work of the Upper Division with an average of 3.2 or higher.

Graduation with High Honors.—A student may be graduated *With High Honors* provided he meets the following requirements:

1. Attains a scholastic average in all academic courses of 3.3 or better.
2. Secures the recommendation of a faculty committee.
3. Presents a thesis satisfactory to his Committee and the faculty of the College.

A copy of detailed regulations governing graduation with high honors may be obtained from the Office of the Dean.

English Requirement.—The responsibility for the correct and effective use of his spoken and written English rests primarily upon the student. Any instructor in the College of Engineering may, at any time, with the approval of the head of his department and the Dean of the College of Engineering, require a student who shows a deficiency in English to complete additional courses, over and above the curriculum requirements, in the Department of English.

Thesis.—Theses are not required of candidates for the Bachelors' degrees in the College of Engineering. However, exceptional students, whom the head of a department believes would be benefited thereby, may be granted permission by the Dean of the College, upon recommendation of the head of the department, to undertake a thesis in lieu of prescribed or elective work in the department in which he is enrolled. Not more than four semester hours will be allowed for such thesis work.

Credit for Practical Work.—Upon the recommendation of the Head of the Department and the approval of the Dean, a student during his course of study, may do practical work under competent supervision in industry, and upon rendering a satisfactory report based upon a previously approved outline and passing an examination, may receive college credit not to exceed 3 semester hours.

Average Required for Graduation.—A composite average of C or higher in all required courses is required for graduation with the Bachelor's Degree.

ADMISSION REQUIREMENTS

To be admitted to the College of Engineering the student should present a certificate of graduation from the University College and be certified by the Entrance Committee of the College of Engineering as qualified to pursue a curriculum leading to a degree in engineering. A student in the University College must choose the proper prerequisite subjects for his professional courses if he desires to graduate in minimum time. Furthermore, he must assume full responsibility for registering for all required courses in their proper sequence and for fulfilling all requirements for admission to the College of Engineering. The courses prerequisite for admission to the College of Engineering include:

Cy. 101-102
CMs. 23-24
Ms. 353-354
Ml. 181-182
Ps. 205-206; 207-208

and the proper prerequisites as follows:

for Chemical Engineering	Cy. 201-202; Cg. 345
Civil Engineering (General)	Ig. 365; Cl. 223-226
Civil Engineering (Public Health Option)	Cy. 201-202
Electrical Engineering	Ml. 282; Ig. 365
Industrial Engineering	Ml. 282; Ig. 365
Mechanical Engineering	Ml. 281-282

The student should endeavor to complete these courses before entering the College of Engineering. In some cases, upon the recommendation of the Entrance Committee of the College of Engineering, a student who has not completed all the prerequisite courses may be admitted and permitted to register *with conditions* until he completes them.

Only students registered in the Engineering College may register for engineering courses numbered 400 and higher, since such courses are of a professional nature.

CURRICULA

CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF CHEMICAL ENGINEERING

*Cg. 346	—Industrial Stoichiometry	3
Cg. 443	—Chemical Engineering Laboratory	2
Cg. 444	—Chemical Engineering Laboratory	2
*Cg. 447	—Principles of Chemical Engineering	3
Cg. 448	—Principles of Chemical Engineering	3
Cg. 449	—Unit Processes	3
Cg. 457-458	—Chemical Engineering Design	2-2
Cg. 467-468	—Chemical Engineering Thermodynamics	3-3
*Cy. 301-302	—Organic Chemistry	4-4
**Cy. 401-402	—Physical Chemistry	4-4
*Cy. 481-482	—Chemical Literature	½-½
El. 341-342	—Elements of Electrical Engineering	3-3
El. 349-350	—Dynamo Laboratory	1-1
Ig. 365-366	—Engineering Mechanics—Statics and Dynamics	3-3
Ig. 367	—Strength of Materials	3-0
Ml. 386	—Power Engineering	0-3
*German or French		3-3
Electives		7
		76

A Plant Inspection Trip is also required.

CURRICULA LEADING TO THE DEGREE OF BACHELOR OF CIVIL ENGINEERING

(General Option)

*Bcy. 308	—Sanitary Laboratory Practice	3-0
*Cy. 215	—Water and Sewage	3-0
*Cl. 323	—Materials Laboratory	0-3
*Cl. 326	—Theory of Structures	0-4
*Cl. 327	—Hydraulics	4-0
Cl. 329	—Higher Surveying (Summer Camp)	3-2
*Cl. 331	—Railway Engineering	3-0
*Cl. 332	—Highway Engineering	0-3
Cl. 425-426	—Water and Sewerage	3-3
Cl. 433-434	—Theory and Design of Reinforced Concrete	3-3
Cl. 435-436	—Structural Engineering	3-3
*El. 342	—Elements of Electrical Engineering	0-3
*El. 350	—Dynamo Laboratory	0-1
*Ig. 366	—Engineering Mechanics—Dynamics	0-3
*Ig. 367	—Strength of Materials	3-0
Ig. 463	—Specifications, Engineering Relations and —Industrial Safety	3-0
	—Approved Electives	16
		75

*To be taken in the Junior Year.

**Cy. 401-402 should be taken as soon as the student has the necessary prerequisites.

(Public Health Option)

*Bcy.	301	—General Bacteriology	4-0
*Bcy.	304	—Pathogenic Bacteriology	0-4
*CEs.	15	—Elementary Statistics	0-4
*Cy.	215	—Water and Sewage	3-0
Cy.	262	—Organic Chemistry (Summer)	5-0
Cy.	403	—Water Analysis	3-0
*Cl.	223-226	—Surveying	3-3
*Cl.	326	—Theory of Structures	0-4
*Cl.	327	—Hydraulics	4-0
Cl.	425-426	—Water and Sewerage	3-3
Cl.	433	—Theory of Reinforced Concrete	3-0
Cl.	440	—Industrial Hygiene	3-0
Cl.	442	—Public Health Engineering	0-3
*Ig.	365	—Engineering Mechanics—Statics	3-0
Ig.	366	—Engieering Mechanics—Dynamics	0-3
*Ig.	367	—Strength of Materials	0-3
Ig.	463	—Specifications, Engineering Relations and —Industrial Safety	3-0
		—Approved Electives	12
			76

*To be taken in the Junior Year.

CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF ELECTRICAL ENGINEERING

*El.	341-342	—Elements of Electrical Engineering	3-3
*El.	344	—Problems of Direct and Alternating Currents	0-3
*El.	346	—Electrical Communications	0-4
*El.	349-350	—Dynamo Laboratory	1-1
El.	441-442	—Electrical Engineering Seminar	1-1
El.	443	—Industrial Electronics	3-0
El.	445	—Electrical Instruments, Meters and Relays	0-3
El.	446	—Electric Power Transmission	0-3
El.	449	—Theory of Electrical Circuits	3-0
El.	465-466	—Radio Engineering	5-5
or			
El.	467-468	—Alternating Current Apparatus	5-5
*Ig.	366	—Engineering Mechanics—Dynamics	0-3
*Ig.	367	—Strength of Materials	3-0
Ig.	463	—Specifications and Engineering Relations	3-0
*Ml.	385-386	—Thermodynamics and Power Engineering	3-3
*Ml.	387-388	—Mechanical Laboratory	1-1
Ml.	489	—Manufacturing Operations	3-0
*Ps.	311	—Electricity and Magnetism	3-0
		Approved Electives	10
			72

CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF INDUSTRIAL ENGINEERING

Es.	205-206	—Economic Foundations of Modern Life	3-3
Bs.	211-212	—Elementary Accounting	3-3
*El.	341-342	—Elements of Electrical Engineering	3-3
*El.	349-350	—Dynamo Laboratory	1-1
*Ig.	366	—Engineering Mechanics—Dynamics	3-0
*Ig.	367	—Strength of Materials	0-3
*Ig.	370	—Job Evaluation	0-2
Ig.	460	—Engineering Economic Analysis	0-3
Ig.	463	—Specifications and Engineering Relations	3-0
Ig.	469-470	—Plant Location and Layout	4-4
Ig.	472	—Human Engineering	0-2
Ig.	477	—Motion and Time Study	3-0
*Ml.	385	—Thermodynamics	0-3
*Ml.	489-490	—Manufacturing Operations	3-3
		Approved Electives of which approximately one-half must be selected from courses offered by the College of Engineering	17
			72

*To be taken in the Junior Year.

CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF MECHANICAL ENGINEERING

*Cg.	361	—Materials of Engineering	3-0
*Cl.	423	—Materials Laboratory	0-3
*El.	341–342	—Elements of Electrical Engineering	3-3
*El.	349–350	—Dynamo Laboratory	1-1
*Ig.	365–366	—Engineering Mechanics—Statics and Dynamics	3-3
*Ig.	367	—Strength of Materials	0-3
Ig.	463	—Specifications and Engineering Relations	3-0
Ig.	472	—Human Engineering	0-2
*Ml.	384	—Metallography	0-2
*Ml.	385	—Thermodynamics	3-0
*Ml.	386	—Power Engineering	0-3
*Ml.	387–388	—Mechanical Laboratory	1-1
Ml.	473–474	—Seminar	1-1
Ml.	481	—Internal Combustion Engines	0-3
Ml.	483	—Mechanical Laboratory	0-1
Ml.	489–49	—Manufacturing Operations	3-3
Ml.	491	—Machine Design	4-0
		Electives (either Group A or Group B)	16
		Approved Electives	3
			73

Group A Electives (Aeronautical Engineering Option)

An.	481–482	—Aerodynamics, Advanced Aerodynamics	3-3
An.	483	—Aerodynamic Laboratory	1-0
An.	484	—Aircraft Instruments	0-1
An.	485–486	—Airplane Design	4-4

Group B Electives (General Option)

Cl.	327	—Hydraulics	4-0
Ml.	482	—Refrigeration and Air Conditioning	0-3
Ml.	484	—Mechanical Laboratory	0-1
		Approved Electives	8

*To be taken in the Junior Year.

SCHOOL OF FORESTRY

A Unit of the College of Agriculture

FACULTY

WILMON NEWELL, D.Sc. (Iowa State College), Provost for Agriculture
H. HAROLD HUME, M.S.A., D.Sc. (Clemson), Dean of the College of Agriculture
HAROLD STEPHENSON NEWINS, M.F., Director and Head Professor of Forestry
GEORGE F. WEBER, Ph.D. (Wisconsin), Professor of Forest Pathology
RUTHFORD H. WESTVELD, M.F., Professor of Silviculture
EDWIN ALLEN ZIEGLER, Sc.D. (Franklin & Marshall), Professor of Forest Economics and Finance
PERCY WARNER FRAZER, M.F., Assistant Professor of Forestry
JAMES W. MILLER, JR., B.S.F., Assistant Professor of Forestry
WILBUR B. DEVALL, M.S., Instructor in Forestry

GENERAL STATEMENT

The work leading to the degree of Bachelor of Science in Forestry meets the strictest requirements necessary in order that the student may be eligible for the Civil Service examination required for employment with the United States Forest Service and other agencies.

The curriculum is designed to provide a broad scientific education in the four fields of forestry, namely: Forest Management, Forest Utilization, Silviculture, and Forest Economics and Finance, with electives in Landscape Forestry and Game Management. The students in their senior year may elect advanced subjects in these particular fields.

The Austin Cary Memorial Forest, consisting of 2083 acres, located eight miles northeast of Gainesville on the Waldo highway, is used as an experimental forest where the student gets actual field practice. The School of Forestry has a nursery and a small sawmill with necessary equipment located on this forest for use in instruction. Naval stores operations and experiments are being carried on continuously. A dry kiln and wood preservation laboratory are located on the University Campus.

The University of Florida has 2500 acres of diversified forest lands in Putnam County, Florida, under long time lease agreement with the United States Department of Agriculture. This tract is known as the University of Florida Conservation Reserve. This area is available for studies in forest management and practices of different kinds. Part of the required summer camp will be held on this unit.

There are several industries at Gainesville, namely: a creosoting plant, pole and tie company, chemical retort company, box and crate factory, excelsior plant, and several small sawmills located in the city or just outside the city limits. These afford quite a varied field of contact for the student during the time of his studies of these particular courses. Three large lumber mills with cutting capacities of approximately 100,000 board feet per working day are located within a radius of 100 miles of the University. These mills are visited from time to time in connection with the particular courses that have reference to lumber-using industries. The production and manufacture of pulp and paper are studied on cutting sites and in the mills. Two of the four National Forests of the State are less than fifty miles distant. Students visit these forests and do actual field work under the supervision of officers of the U. S. Forest Service. The State Forest and Park Service has developed many recreational areas within easy traveling distances from which students may observe the laying out and planning of recreational sites.

It is the aim of the School to develop young foresters with a broad outlook and a sound basic training in applied forestry, thus equipping them for work in any of the various fields that forestry affords.

REQUIREMENTS FOR ADMISSION

Graduation from the University College or its equivalent as determined by the Board of Examiners. The student should have completed the following courses:

Acy. 125-126—Agricultural Chemistry *or*
Cy. 101-102—General Chemistry
Bty. 303—General Botany
Fy. 220—Introduction to Forestry
Fy. 226—Dendrology of the Angiosperms
Fy. 228—Forest Mensuration
Cl. 223—Surveying
C-421—Trigonometry

REQUIREMENTS FOR GRADUATION

The student must complete a total of 69 semester hours as determined by the curriculum including Military Science, if it is elected. The student must have an average of C or higher on all work required for his degree. Also, the student must attend and successfully complete a ten weeks Junior Summer Camp which will be held at the University Conservation Reserve; Austin Cary Memorial Forest; and one of the National Forests in the mountains of the eastern United States.

Those students who wish to secure training which will fit them for work in wildlife management may, with the permission of the Director of the School of Forestry, make the following substitutions in the forestry curriculum: Bly. 102, General Animal Biology, for Ey. 301, Introduction to Entomology; Fy. 353, Principles of Wildlife Management, for Fy. 309, Wood Technology and Timber Physics; Fy. 434, Applied Wildlife Management, for Fy. 413, Regional Silviculture; Bly. 209, Comparative Vetebrate Anatomy, for Pt. 325, Forest Pathology; and either Bly. 210, Vetebrate Embryology or Bly. 416, Animal Parasitology for Fy. 418, Logging and Lumbering.

In cases where the substitute courses differ in number of credits from the courses for which the substitution is made, adjustment must be made in the elective credits so that the total number of credits will be 69 semester hours.

GRADUATION WITH HONORS

To graduate with honors students in the School of Forestry are considered separately from those in the College of Agriculture. For requirements see general statement for graduation with honors, College of Agriculture.

CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF SCIENCE IN FORESTRY

Junior Year

Courses	First Semester	Credits
Fy. 227	—Dendrology of Gymnosperms	2
Fy. 229	—Forest Mensuration	2
Fy. 306	—Forest Protection	2
Fy. 311	—Foundations of Silviculture	3
Sls. 301	—Soils	3
Fy. 409	—Forest Finance	2
	Elective	3
		17

Courses	Second Semester	Credits
Fy. 309	—Wood Technology and Timber Physics	3
Fy. 310	—Reforestation and Nursery Practice	3
Fy. 318	—Forest Utilization and Products	3
Fy. 320	—Silviculture	3
Fy. 418	—Logging and Lumbering	3
	Elective	3
		18

Junior Summer Camp.—Ten weeks. This camp preferably should be attended between the sophomore and junior years. The student will then be qualified to secure summer forestry employment between his junior and senior year, thereby gaining valuable practical experience. The camp is held on the University of Florida Conservation Reserve, Austin Cary Memorial Forest, and some national forest in the Southern Appalachians. At least 40 hours a week in the forest doing practical work, scientific observations, surveying, forest mensuration, tree identification, protection, improvement, utilization, and advanced methods of forest topographic mapping, timber appraisal and silvicultural practice.

Senior Year

Courses	First Semester	Credits
Fy. 412	—Seminar	1
Fy. 413	—Regional Silviculture	3
Fy. 419	—Principles of Forest Management	3
Fy. 420	—Forest Economics and Administration	3
Pt. 325	—Forest Pathology	3
Ey. 301	—Introduction to Entomology	4
		17

Courses	Second Semester	Credits
Fy. 410	—Forestry History and Policy	2
Fy. 412	—Seminar	1
Fy. 416	—Forest Management Working Plans	3
Sch. 241	—Speech	3
	Elective	8
		17

COLLEGE OF LAW

FACULTY

Harry Raymond Trusler, M.A., LL.B. (Michigan), Dean and Head Professor of Law
Robert Spratt Cockrell, M.A., B.L. (Virginia), Professor of Law, Emeritus
Clifford Waldorf Crandall, B.S., LL.B., LL.D. (Adrian), Professor of Law
Dean Slagle, M.A., LL.B. (Yale), Professor of Law
Clarence John TeSelle, A.B., LL.B. (Wisconsin), Professor of Law
James Westbay Day, M.A., J.D. (Florida), Professor of Law
*William Allen McRae, Jr., B.Litt. (Oxon.), J.D. (Florida), Professor of Law

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Ila Rountree Pridgen, LL.B., Librarian and Administrative Assistant
Veda B. Bell, Chief Clerk and Assistant Librarian

GENERAL INFORMATION

ADMISSION

Applicants for admission to the College of Law must have received a degree in arts or science in a college or university of approved standing, or must be eligible for a degree in a combined course in the University of Florida, upon the completion of one year of work in the College of Law. The University also offers this combined course with the Florida State College for Women.

For the duration of the war, applicants will be admitted who have completed two years of academic college work meeting the standards of the Association of American Law Schools.

In addition to other requirements, all applicants for admission to the College of Law, whose pre-law training has not been received at this institution, must satisfactorily pass scholastic and legal aptitude tests given by the Board of University Examiners, unless from the nature of their previous record they are excused by the law faculty.

Women Students.—Women students who fully meet the entrance requirements of the College may enter as candidates for degrees.

Special Students.—Special students are not admitted to the College of Law.

Advanced Standing.—No work in law done in other institutions will be accepted towards a degree unless the applicant passes satisfactorily the examination held in the subjects in question in this College, or unless credit is given without examination. Credits of an average of C from schools which are members of the Association of American Law Schools, of which this College is a member, will be accepted without examination. In no case will credit be given for work not done in residence at an approved law school.

PURPOSE

The aim of the College, which is a member of the Association of American Law Schools, registered by the New York Board of Regents, and an approved school of the American Bar Association, is to impart a thorough, scientific, and practical knowledge of the law. It aims to develop keen, efficient lawyers, conversant with the ideals and traditions of the profession. Its policy is characterized by the emphasis of practice as well as theory; pleading as well as historical perspective; skill in brief making, as well as in giving legal information.

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*On leave of absence.

LIBRARY

The Law Library contains over 18,250 volumes. In it are included the published reports of the courts of last resort in every state in the Union and of the Federal Courts, the English Reports, Full Reprint, the English Law Reports, Law Journal Reports, Law Times Reports, Dominion Law Reports, the Canadian Reports, Australian Reports, New Zealand Reports, Scottish Reports, and the Philippine Reports, together with a collection of digests, encyclopedias, series of selected cases, English and American treatises and textbooks, and the statutes of a majority of American jurisdictions including the Federal statutes.

ADMISSION TO THE BAR

Upon presenting their diplomas and satisfactory evidence that they are twenty-one years of age and of good moral character, the graduates of the College are licensed, without examination, to practice in the courts of Florida.

LEGAL RESEARCH

To enable students to specialize in legal problems of particular interest to them, to acquire a grasp of the technique of legal investigation, and to do more creative work than ordinary courses in law permit, a course in legal research (Lw. 601) is offered. Each student taking the course is required to make an original study of the subject he selects under the guidance of the member of the faculty in whose field it falls. Suitable studies will be submitted by the College to law journals for publication.

Applications for the course should be filed with the Secretary of the College at least one week prior to the first day of registration. Students who register for two or three hours will not be permitted to drop the course for the number of hours for which they have registered and continue it for a lesser number of hours, unless they do so within the first two weeks of the term. No more than three credits may be earned by a student in this course in one term, but the faculty may admit a student to the course (Lw. 602) for a second term.

STANDARDS OF THE AMERICAN BAR ASSOCIATION

The Council on Legal Education and Admissions to the Bar of the American Bar Association requests that attention be called to the Standards of the American Bar Association adopted in 1921 and by it recommended for enactment by all states. These Standards provide in effect that every candidate for admission to the bar, in addition to taking a public examination, shall give evidence of graduation from a law school which shall require at least two years of study in a college as a condition of admission, and three years of law study (or longer if not a full-time course), which shall have an adequate library and a sufficient number of teachers giving their entire time to the school to ensure actual personal acquaintance and influence with the whole student body, and which shall not be operated as a commercial enterprise.

DEGREES AND CURRICULA

BACHELOR OF LAWS

The degree of Bachelor of Laws (LL.B.) is conferred upon those students who satisfactorily complete eighty-five semester hours of law, which must include all of the first-year subjects. Students who have an honor point average of 3.0 for all the law work offered for graduation will be eligible for the degree of LL.B. *With Honors.* Those who have an honor point average of 3.5 for all the law work offered for graduation, which work must include Legal Research, will be eligible for the degree of LL.B. *With High Honors.*

Students admitted to advanced standing may receive the degree after one year's residence, but in no case will the degree be granted unless the candidate is in actual residence during all of the third year and passes in this College at least 28 semester hours of law.

All students are required to complete the last 28 credit hours applied towards the degree during regular residence. This may be varied only upon written petition approved by the faculty of the College of Law.

An average of C, or higher, is required in all work counted toward a degree.

COMBINED ACADEMIC AND LAW CURRICULA

By pursuing an approved course of collegiate and law studies a student may earn both the academic and the legal degree in six years. Both the College of Arts and Sciences and the College of Business Administration offer such combined curricula.

CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF LAWS

Students completing the first year as outlined below and a total of 85 semester hours of law credit with an average of C, or better, will be awarded the degree of Bachelor of Laws.

First Year

Courses	First Semester	Credits	Courses	Second Semester	Credits
Lw. 301	—Torts	5	Lw. 302	—Equity Jurisprudence	5
Lw. 303	—Contracts	3	Lw. 304	—Contracts	3
Lw. 305	—Criminal Law and Procedure	4	Lw. 306	—Marriage and Divorce	1
Lw. 309	—Property	2	Lw. 308	—Common Law Pleading	3
			Lw. 312	—Property	2

Second Year

Lw. 401	—U. S. Constitutional Law	4	Lw. 403*	—Agency	2
Lw. 402	—Evidence	4	Lw. 405	—Equity Pleading	2
Lw. 404*	—Quasi Contracts	2	Lw. 406	—Private Corporations	4
Lw. 409	—Property III	3	Lw. 408	—Leg. Eth. & Bibliography	2
Lw. 413	—Florida Civil	3	Lw. 410	—Property IV	3
Lw. 416*	—Insurance	2	Lw. 411	—Fla. Constitutional Law	2
Lw. 417	—Partnership	2	Lw. 415*	—Abstracts	2
Lw. 418	—Taxation	3	Lw. 421*	—Legislation	2
			Lw. 432*	—Current Constitutional Law	2

Third Year

Lw. 503*	—Public Utilities	2	Lw. 502*	—Damages	2
Lw. 505	—Federal Jurisdiction	2	Lw. 504*	—Municipal Corporations	2
Lw. 509*	—Sales	2	Lw. 506	—Negotiable Instruments	3
Lw. 515	—Mortgages	2	Lw. 508	—Conflict of Laws	3
Lw. 517*	—Practice Court	1	Lw. 513	—Property V	3
Lw. 519	—Trial Practice I	2	Lw. 516*	—Practice Court	1
Lw. 522	—Admiralty	2	Lw. 518	—Trial Practice II	2
Lw. 531	—Equitable Remedies	2	Lw. 520	—Creditor's Rights	3
Lw. 601	—Legal Research	1 to 3	Lw. 521	—Trusts	2
			Lw. 530*	—Administrative Law	2
			Lw. 602	—Legal Research	1 to 3

*Not offered in 1945-46.

The courses above may be varied or omitted to meet the exigencies of war conditions.

SCHOOL OF PHARMACY

A Unit of the College of Arts and Sciences

FACULTY

TOWNES RANDOLPH LEIGH, Ph.D. (Chicago), D.Sc. (Stetson), Acting Vice-President; Dean, College of Arts and Sciences

WILLIAM HAROLD WILSON, Ph.D. (Illinois), Associate Dean, College of Arts and Sciences

PERRY ALBERT FOOTE, Ph.D. (Wisconsin), Director and Professor of Pharmaceutical Chemistry; Director of Bureau of Professional Relations

LEROY D. EDWARDS, Ph.D. (Western Reserve), Head Professor of Pharmacognosy and Pharmacology

WILLIAM J. HUSA, Ph.C., Ph.D. (Iowa), Head Professor of Pharmacy

CARL H. JOHNSON, Ph.D. (Washington), Assistant Professor of Pharmacognosy and Pharmacology

GENERAL STATEMENT

All work offered in the School of Pharmacy meets the highest requirements of pharmaceutical instruction in this country. The school is accredited by the American Council on Pharmaceutical Education and therefore receives recognition for its courses from all state boards requiring attendance in an accredited school of pharmacy as a prerequisite for examination and registration.

All students are enrolled by the Florida State Pharmaceutical Association as associate members, as per resolution adopted by the Executive Committee in January, 1935. Upon graduation and registration as a pharmacist, full membership in the Association is granted free for one year.

The curriculum is designed to provide a broad scientific education, to train retail pharmacists, and to provide an opportunity for further specialization either in Commercial Pharmacy, in Pharmaceutical Chemistry, or in Pharmacognosy and Pharmacology. Specialization in Commercial Pharmacy should qualify a student for a position as manager in a drug store, prescription clerk, or as a salesman of drugs and chemicals. Specialized work in Pharmaceutical Chemistry is designed to train men for positions in food and drug laboratories, or as manufacturing pharmacists. The completion of advanced work in Pharmacognosy or Pharmacology should qualify one to act in the capacity of pharmacognocist or inspector of crude drugs with a manufacturing concern, or with the Federal Customs Service, or as pharmacologist for manufacturing houses or other laboratories. The foregoing are only a few of the many positions open to men who possess training along any of the above lines. The demand for graduates of this school exceeds the supply. This curriculum also provides opportunity, through selection of approved electives or options, for the completion of minimum requirements for entrance into certain medical colleges. However, major emphasis is placed on the training of retail pharmacists.

A ten-acre tract has been allotted to the School of Pharmacy for use as a medicinal plant garden, which is used as a teaching adjunct and as a source of supply of fresh material for study, investigation, and classroom illustration.

The General Edmund Kirby-Smith Memorial Herbarium, consisting of 5,600 specimens, with those collected locally, provides a collection of approximately 6,000 plant specimens. Some of these were collected as early as 1846. Specimens from nearly every state and many foreign countries make up this collection. This herbarium provides actual specimens for study of plant classification and for comparison and identification of new species.

The Chemistry-Pharmacy branch of the main library is housed in the Chemistry-Pharmacy building. The library includes text and reference books and many American and foreign periodicals on chemical, pharmaceutical, and medical subjects.

The Bureau of Professional Relations was established in 1940 by a grant of $5,000 from the Florida State Board of Pharmacy. It actively assists in solving mutual problems of physicians and pharmacists. The work is approved by the Florida Medical Association and the Florida State Pharmaceutical Association. Many thousands of pieces of informative professional literature are mailed each year to members of both professions.

REQUIREMENTS FOR ADMISSION

(a) Graduation from the University College or its equivalent as determined by the Board of University Examiners, and (b) recommendation of the Board of University Examiners.

Students planning to study pharmacy are advised to offer General Chemistry, Pharmacy 223-224, and Pharacognosy 221-222 as the University College electives.

GRADUATION WITH HONORS

To graduate *With Honors*, a student must have graduated from the University College *With Honors* and earn an honor point average of at least 3.0 in the work of the Upper Division or in lieu of graduation from the University College *With Honors* earn an honor point average of at least 3.2 in the work of the Upper Division.

To graduate *With High Honors*, a student must meet the requirements for graduation *With Honors* and be recommended for graduation *With High Honors* by the faculty.

BACHELOR OF SCIENCE IN PHARMACY

The Degree of Bachelor of Science in Pharmacy is awarded on completion of the curriculum as outlined below. Opportunity for specialization in Pharmacy, Pharmaceutical Chemistry, Pharmacognosy, or Pharmacology is provided through choice of electives in the senior year. Suggested electives are listed after curriculum.

MASTER OF SCIENCE IN PHARMACY

Courses are offered in the Graduate School leading to the degree of Master of Science in Pharmacy.

For requirements for the Master's Degree, see page 121.

DOCTOR OF PHILOSOPHY

Courses are offered in the Graduate School leading to the degree of Doctor of Philosophy with specialization in Pharmaceutical Chemistry, Pharmacy, Pharmacognosy, and Pharmacology. See page 116.

CURRICULUM

To be eligible for the degree of Bachelor of Science in Pharmacy all requirements of the curricula for pharmacy students in both the University College and the School of Pharmacy must be completed. For example, if Pharmacy 223-224 or Pharmacognosy 221-222 are not completed in the University College, these courses must be completed after admission to the School of Pharmacy. However, in such cases these courses may be taken in lieu of an equal number of hours of options.

An average of C, or higher, is required in the courses required for a degree.

Junior Year

Courses	First Semester	Credits	Courses	Second Semester	Credits
Cy. 203	—Analytical Chemistry	3	Cy. 204	—Analytical Chemistry	3
Cy. 262	—Organic Chemistry	5	Ply. 262	—Applied Physiology	2
Ply. 261	—Applied Physiology	2	Ply. 362	—Pharmacology	4
Ply. 351	—Pharmacology	3	Phy. 353	—Organic and Analytical Pharmacy	5
Phy. 211	—Inorganic Pharmacy	5	Phy. 372	—Commercial Pharmacy	4
		18			18

Senior Year

Ply. 451	—Principles of Biologicals	3	Ply. 456	—New Remedies	3
Ply. 455	—New Remedies	3	Phy. 362	—Prescriptions and Dispensing	4
Phy. 354	—Organic and Analytical Pharmacy	5	Phy. 402	—Pharmaceutical Arithmetic	2
Phy. 361	—Prescriptions and Dispensing	4	Phy. 432	—Advanced Drug Analysis	3
Phy. 381	—Pharmaceutical Jurisprudence	2		Approved Electives	6
		17			18

Suggested electives:

Ply. 517—Clinical Methods	3
Ply. 452—Principles of Biologicals	3
Bs. 211-212—Elementary Accounting	6
Pgy. 242—Drug Plant Histology	2
Pgy. 342—Microscopy of Drugs	2

CURRICULA IN RADIO BROADCASTING TRAINING

THE COMMITTEE ON TRAINING FOR RADIO

Henry P. Constans, *Chairman*, Head Professor of Speech
Lester L. Hale, Associate Professor of Speech
James E. Chace, Associate Professor of Economics
William L. Lowery, Associate Professor of Journalism
Garland W. Powell, Director Radio Station WRUF
Joseph Weil, Dean of the College of Engineering

GENERAL INFORMATION

The curricula in Radio Broadcasting Training are designed to give each student a broad cultural background and to train for specialization in radio according to individual interests and aptitudes. It involves training in the fields relevant to that end with the student securing his basic education from the program of the University College and his specialized training in the College of Arts and Sciences, the College of Business Administration, and the College of Engineering. The three general categories of activity involved in radio broadcasting are:

1) technical operation
2) commercial activities
3) programming activities

Since the demand for persons thoroughly trained in radio broadcasting has been steadily increasing, the curricula are organized to acquaint the student with all the aspects of program preparation and production, and with the organization and management of a radio station. Each student is allowed to gain experience in actual radio procedure in Radio Station WRUF, which is used as a laboratory for the course.

A Committee on Training for Radio administers the curricula of Radio Broadcasting. By means of tests, conferences, and other devices, this Committee advises and assists students who are interested in the field.

METHOD OF REGISTRATION

The student who wishes to register for one of the programs of Training for Radio is to report to the Chairman of the Committee on Training for Radio who will designate one of the members of the Committee as adviser to the student. This adviser will assist the student in outlining his program and will recommend the courses for which the student is to register each semester.

TECHNICAL CURRICULUM IN RADIO BROADCASTING

For work in the technical field of radio broadcasting, there is available the curriculum in Communications in the College of Engineering. This is open to students after they have completed the work of the University College, which constitutes the first two years of their program. For further information on this curriculum see page 107, Electrical Engineering. The electives of this curriculum should be utilized in taking some of the Professional Courses in Radio Broadcasting.

COMMERCIAL CURRICULUM IN RADIO BROADCASTING

A. Completion of the University College program including:

C-1	Man and the Social World
C-2	Man and the Physical World
C-3	Reading, Speaking and Writing
C-41	Man and His Thinking
C-42	General Mathematics
C-5	The Humanities
C-6	Man and the Biological World
Es. 205-206	Economic Foundations of Modern Life
Es. 203	Elementary Statistics
Bs. 211-212	Elementary Accounting
Eh. 133	Effective Writing
Ps. 224	Sound and Its Application

B. Registration in the College of Business Administration, following the regular curriculum with emphasis upon courses in advertising and marketing, or the curriculum in Public Administration.

PROGRAMMING CURRICULUM IN RADIO BROADCASTING

A. Completion of the University College program including:

C-1	Man and the Social World
C-2	Man and the Physical World
C-3	Reading, Speaking and Writing
C-41	Man and His Thinking
C-42	General Mathematics
C-5	The Humanities
C-6	Man and the Biological World
Ps. 224	Sound and Its Application

and, with the advice of the Committee on Training for Radio, enough electives to complete the program of general education. Some of these electives will be chosen from the professional courses in Radio Broadcasting.

B. Registration in the College of Arts and Sciences, taking a group major, including as many of the professional courses in Radio Broadcasting as fit into the group major. The other Upper Division requirements should be met in part by selecting as many courses as fit in with radio broadcasting training, both from the professional courses listed below, and from other courses that are available. The selection of courses shall in all cases be made with the approval of the Committee on Training for Radio.

PROFESSIONAL COURSES IN RADIO BROADCASTING

Courses	Credits
1. SOUND	
Ps. 224—Sound and Its Application	2
2. WRITING	
Eh. 133—Effective Writing	4
Jm. 301—News Writing and Editing	4
Jm. 302—News Writing and Editing	4
Jm. 406—Radio Writing	2
3. SPEAKING	
Sch. 241—Effective Speaking	3
Sch. 311—Speech Training for the Radio	3
4. READING	
Sch. 307—Interpretation of Literature	3
Sch. 403—One-Act Play	3
5. ADVERTISING	
Bs. 433—Advertising	3
Jm. 403—Newspaper and Radio Advertising	3
6. SPECIAL COURSES	
Jm. 409—Law of the Press	3
Psy. 306—Applied Psychology	3
Msc. 310—Music Appreciation	2

THE GRADUATE SCHOOL

James Nesbit Anderson, Ph.D., Dean Emeritus
Thomas Marshall Simpson, Ph.D., Dean of the Graduate School and Head Professor of Mathematics

GENERAL INFORMATION

ADMINISTRATION

The affairs of the Graduate School are administered by the Graduate Council, which consists of the Dean as *ex-officio* chairman, and certain members of the faculty, who are appointed annually by the President.

ADMISSION

To be admitted to the Graduate School an applicant must be a graduate of a standard college or university and have a foundation in the major subject sufficient in quantity and quality to be satisfactory to the department in which the student proposes to major.

If the student is a graduate of a college or university which does not meet standard requirements, or if the quantity and quality of the foundation in his proposed major field is not completely satisfactory, he may nevertheless be permitted to register provisionally, and demonstrate by a qualifying examination and a semester's work, his preparation for and his ability to do graduate work. Such students often will be required to spend longer than the prescribed time in completing the requirements for the degree. It is permissible for well-qualified students to take courses in the Graduate School without becoming candidates for an advanced degree.

REGISTRATION

All graduate students, old or new, are required to register in the Office of the Dean on the regular registration days as indicated in the calendar. The student should consult in advance the Dean and the head of the department in which he proposes to major, and inquire if he is eligible to register for this work. A complete transcript of all undergraduate and graduate work should be transmitted to the Registrar, at least one month before the beginning of the session, by the Registrar of the institution in which the credits have been earned.

The transcript must be in the office of the Registrar before the student will be allowed to register. If the student seems eligible, he will be referred by the Dean to the head of the department concerned. Either the head of the department or some professor in that department will become the professor of the major subject for the student, and will plan the courses for which he is to register. A blank form upon which the major professor approves the courses is furnished at the Dean's office.

ABSTRACT

Each thesis and each dissertation is to be accompanied by a separate summary or abstract. The student should consult the Graduate Office for details.

FEES

At the time when the thesis is submitted to the Dean, the student will also have to pay $4 for binding two copies of the thesis or the dissertation.

Holders of graduate assistantships and graduate scholarships are exempt from the fee for non-Florida students, but not from breakage fees.

Some fees are optional: for instance, the student activity fee. If a student wishes the privileges that go with this fee, he must pay the fee in advance.

THE MASTER'S DEGREE

Degrees Offered.—Master of Arts; Master of Arts in Architecture; Master of Arts in Education; Master of Science; Master of Science in Agriculture; Master of Science in Engineering; Master of Science in Pharmacy; and Master of Education.

REQUIREMENTS FOR ANY MASTER'S DEGREE EXCEPT MASTER OF EDUCATION

Residence Requirement.—The student must spend at least one entire academic year at the University as a graduate student devoting his full time to the pursuit of his studies. If the work is done in the summer, three complete summer sessions, or six short summer terms, will satisfy the residence requirement. If there is a break in the student's work, his whole course must be included within a period of seven years, unless the Supervisory Committee recommends otherwise.

Transfer of Credits.—Under certain conditions transfer of a limited number of credits to the University will be allowed; but the final acceptance of credits from other institutions is subject to the approval of the student's Supervisory Committee. Transferred credits may reduce the course requirement but not the residence requirement, and work they represent shall be included in the final examination.

Work Required.—The work for the master's degree shall be a unified program with a definite objective, consisting of twenty-four semester hours or the equivalent, at least half of which shall be in a single field of study and the remainder in related subject matter as determined by the student's Supervisory Committee. The principal part of the course work for the master's degree shall be designated strictly for graduates. However, in the case of related subject matter, courses numbered 300 and above may be offered upon the approval of the Supervisory Committee.

In addition to the course work, the student will be required to prepare and present a thesis (or equivalent in creative work) acceptable to the Supervisory Committee. The thesis shall be submitted to the Dean or the Graduate Council for approval. The student should consult the Dean's office for instructions concerning the form of the thesis. Two copies of this thesis shall be in the hands of the Dean on or before the dates specified in the University Calendar. These copies are deposited in the Library if the thesis is accepted.

Grades.—Passing grades for students registered in the Graduate School are A and B. All other grades are failing.

Language Requirement.—

1. *Foreign Language.*—A reading knowledge of a foreign language is left to the discretion of the student's Supervisory Committee. When a foreign language is required the examination will be conducted by the language department concerned. The requirement must be satisfied before the beginning of the last semester. A student in the regular session must pass the language examination by *March 15* if he expects to graduate at the end of the first summer term of that year, and by *April 20* if he expects to graduate at the end of the second summer term. In case the student is completing all his work in the summer terms, the foreign language requirement must be satisfied before the beginning of the fourth short summer term. If the student is majoring in a foreign language, that language cannot be used to satisfy this requirement.

2. *English Language.*—The effective use of the English language as determined by the student's Supervisory Committee is required of all candidates for the master's degree.

Admission to Candidacy.—Whether an applicant has been provisionally admitted or regularly admitted, his Supervisory Committee shall review his entire academic record at the end of his first semester or summer session of residence work. In addition to the approval of the committee, a formal vote of the principal department concerned will be necessary to admit the applicant to candidacy, to fix definitely the additional residence and course requirements, and to approve the program the applicant has submitted.

Supervisory Committee.—The Dean shall appoint a special Supervisory Committee for each student consisting of not less than three members. The professor of the principal subject will be chairman of this committee. The Dean is an *ex-officio* member of all Supervisory Committees. The many important duties of the Supervisory Committee are given under several of the items relating to the requirements for the master's degree.

General Examination.—It will be the duty of the Special Supervisory Committee, when all work is complete or practically complete, including the regular courses and the thesis, to conduct a general examination, either written or oral, or both, to embrace: first, the thesis; second, the major subject; third, the minor or minors; fourth, questions of a general nature pertaining to the student's field of study. The Committee shall report in writing to the Dean not later than one week before the time for the conferring of the degree if all work has been completed in a satisfactory manner and the student is recommended for the degree.

Work Done in Absentia.—Credit is not given for work done *in absentia.* No courses may be taken for credit by extension or correspondence. Under the following conditions, however, the Graduate Council may vote to allow the student to finish and submit his thesis when not in residence:

(1) If he has completed his residence requirement.

(2) If he has completed his course requirements.

(3) If he has submitted while in residence a draft of his thesis and obtained the approval of his Supervisory Committee as to the substance of his thesis.

(4) If the Supervisory Committee recommends to the Graduate Council that the student be given the privilege of finishing the thesis *in absentia* and submitting it later.

(Note that all four of these conditions must be fulfilled.)

In case this privilege is granted and the final draft of the thesis is approved, it will be necessary for the student to appear and stand the final examination. His presence will also be necessary at Commencement if the degree is conferred.

Training in Trade and Industrial Education.—The University of Florida in cooperation with the State Department of Public Instruction offers work on the graduate level in Trade and Industrial Education in the summer at Daytona Beach. Students interested should consult the *Bulletin of the School of Trade and Industrial Education.*

REQUIREMENTS FOR DEGREE OF MASTER OF EDUCATION

Description and Purpose.—Beginning with the Summer Session of 1944, graduate work leading to the degree of Master of Education became available. This degree is designed for the professional preparation of teachers, rather than for research. The work aims to develop in public school works a wide range of essential abilities and to give them a broad background of advanced general education, rather than to encourage them to specialize narrowly. While not neglecting to add to the qualifications already attained, it further aims to overcome weaknesses in a student's development. There is a continuous integration of fields of subject matter with educational theory and practice and with each other.

Moreover, a continuous provision is made for diagnosing students' needs and for the planning of individual programs to care for those needs.

Students in Education who have started graduate work and who wish to study for the M.Ed. may do so by arranging with the general supervisory committee to comply with the requirements of this program.

Requirements for Admission.—A student with a bachelor's degree from an accredited institution may be admitted to the M.Ed. program whether or not he has previously earned any prescribed amount of credits in Education.

In summer terms, an entering student from a non-accredited institution may be permitted to register as an unclassified student until his standing can be determined. Upon the recommendation of the general supervisory committee and the approval of the Dean of the Graduate School, credits earned while a student is unclassified may count toward his degree.

Residence Requirement.—A minimum of six summer terms, or two semesters and one short summer term, or the equivalent, is required as residence. Any student whose undergraduate work does not fit into this program may have to spend more than the minimum time to earn the degree.

Transfer of Credits.—If recommended in advance by the general supervisory committee and approved by the Dean of the Graduate School, a student may be permitted to study with some competent teacher in another institution for one six-weeks summer term. Credits earned prior to admission to the University are governed by the present regulations of the Graduate School.

Work Required.—Instead of having a fixed requirement of majors and minors, each student will be required to show a reasonable amount of competence in certain areas of work as determined by the general supervisory committee. Minimum course requirement is 36 semester hours, of which not more than six may be taken in any one summer term and not more than fifteen in any one semester.

Syllabi and directions for study in each of these areas have been prepared and made available to students. A great deal of individual work is expected, but not without counsel, guidance and instruction. Competence is judged (1) by daily association with the students on the part of designated instructors, (2) by oral, or written, or both, evaluation at the end of each term, and (3) by a comprehensive oral and written examination just before graduation.

A thesis is not required, but the student is required to submit a considerable amount of written material in the form of reports, term papers, records of work accomplished, etc., all of this written material to be directed toward the integration, adaptation and utilization of the student's program. A reading knowledge of a foreign language is not required, but the effective use of the English language is expected of all candidates. Admission to the work of this program is not a guarantee that the student will be admitted to candidacy for the degree. The general supervisory committee will recommend the student for admission to candidacy as soon after his first semester or summer session of work as he has satisfied the committee of his qualifiations.

The candidate must have at least one year of teaching experience prior to the last six-weeks summer term.

Any additional work above the normal residence requirement must be recommended by the general supervisory committee and approved by the Dean of the Graduate School.

The General Supervisory Committee.—Students in this program are directed by a general supervisory committee of five members, with Dean J. W. Norman as chairman. Other members of the staff will be called in to aid in individual cases.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

The degree of Doctor of Philosophy is offered only in the departments of Animal Husbandry (Animal Nutrition), Biology (Zoology), Chemistry, Pharmacy, and Pharmacognosy and Pharmacology. It is expected that other departments will be added from year to year as facilities are increased.

Time and Residence.—A minimum of three academic years of resident graduate work, of which at least the last year must be spent at the University of Florida, is required of all candidates for the doctor's degree. In many cases, it will be necessary to remain longer than three years, and necessarily so when the student is not putting in his full time in graduate work.

Distribution of Work.—Two-thirds of the student's time is expected to be spent upon his major subject and the dissertation, and about one-third on his minor or minors. The student will be guided by the professor of his major subject and by his special supervisory committee in regard to his whole course of study. The Graduate Council does not specify just what courses or how many courses will be required. The work is now mainly research, and the student will be thrown largely upon his own responsibility. He is expected to familiarize himself thoroughly with his field of study, and as a result of his studies and investigations, to produce a work which will add something to human knowledge.

Minors.—The student must take one minor and may not take more than two minors. In general, if two minors are taken, the second minor will require at least one year. The first minor will require twice as much work as the second, and if only one minor is taken it will require as much work as two minors.

Special Supervisory Committee.—When the student has advanced sufficiently towards his degree, a special committee will be appointed by the Dean, of which committee the professor of the major subject will be chairman. This committee will direct, advise, and examine the student. The Dean is an *ex-officio* member of all supervisory committees.

Language Requirement.—A reading knowledge of both French and German is required of all candidates for the Ph.D. degree. The examinations in the languages are held by the language departments concerned. These requirements should be met as early as possible in the student's career and must be satisfied before the applicant can be admitted to the qualifying examination.

Qualifying Examination.—A qualifying examination is required of all candidates for the degree of Doctor of Philosophy. This examination may be held during the second term of the second year of residence. The examination is both written and oral and covers both major and minor subjects. It will be conducted by his Special Supervisory Committee. After passing the qualifying examination the student must put in at least one full academic year of residence before the degree is conferred. If the student fails in his qualifying examination, he will not be given another opportunity unless for special reasons a re-examination is recommended by his Special Supervisory Committee and approved by the Graduate Council.

Dissertation.—A satisfactory dissertation showing independent investigation and research is required of all candidates. Two typewritten copies of this dissertation must be presented to the Dean on or before the date specified in the University Calendar. If the student should be a candidate for the degree in a summer term, the thesis must be completed and submitted to the Dean not later than three weeks before the end of the term in which the student expects to receive his degree.

Printing of Dissertation.—One hundred printed copies of the dissertation must be presented to the University within three years after the conferring of the degree. Reprints from reputable scientific journals may be accepted upon the recommendation of the Special Supervisory Committee. After the dissertation has been accepted, the candidate must deposit with the Business Manager, not later than one week before the degree is conferred, the sum of $50 as a pledge that the dissertation will be published within the prescribed time. This sum will be returned if the printed copies are received within three years.

Final Examination.—After the acceptance of the dissertation and the completion of all the work of the candidate, he will be given a final examination, oral or written, or both, by his Special Supervisory Committee.

Recommendation.—If the final examination is passed, the Special Supervisory Committee will report to the Dean in writing not later than one week before the time for conferring the degree that the student has met all requirements for the degree, and that he is presented to the Graduate Council for recommendation for the degree of Doctor of Philosophy.

GRADUATE ASSISTANTSHIPS AND SCHOLARSHIPS

A number of graduate assistantships and scholarships are available to graduate students. The stipend varies. For information write to the Dean of the Graduate School.

The Graduate Scholarships may be in any department that offers major work for a master's degree. Application must be filed not later than March 15. Students accepting these scholarships are not permitted to take other remunerative positions.

Graduate Scholarships are administered by the Office of the Dean. Graduate Assistantships are handled by the departments.

FELLOWSHIPS

(Additional information concerning these fellowships may be secured from the Dean of the Graduate School.)

The Napoleon B. Broward and the William S. Jennings Fellowships.—The investigations conducted under these fellowships, established by the United States Sugar Corporation, have for their object the development of additional data with respect to the soil, water, climatic, general agricultural, and other characteristics of the Florida Everglades, as related to the efficient management and conservation of the various soils found in that area, for agricultural purposes.

Florida Federation of Garden Clubs Horticultural Fellowship.—This fellowship, established by the Florida Federation of Garden Clubs, has for its object the investigation of special problems confronting gardening in Florida. The work is under the direction of the Department of Horticulture.

INSTRUCTIONS FOR GRADUATE STUDENTS

1. Correspond with the Dean and if necessary with the head of the department in which you propose to take your major work.

2. If you are found eligible and decide to come to the University of Florida, have the Registrar of your school send a transcript of your work to the Registrar at the University. This should be at least a month before the date for registration, *and it must be on file before the student will be allowed to register.*

3. At the proper time, register with the Dean. He will give you blank form No. 1 to take to your department head. Either the head of the department or some other professor in this department will become the professor of your major subject and will suggest courses for which you should register for the session. Take this blank to the Dean and complete your registration.

4. See that the language requirements are satisfied at the proper time.

5. Early in your last term before graduation, notify the Registrar that you are a candidate for a degree. See calendar for "Last day for making application for a degree".

6. When you are ready to put the thesis in final form, get instructions at the Dean's office. Watch your time. Consult the calendar.

7. Consult the professor of your major subject and your special supervisory committee for guidance.

8. Always feel free to seek information at the Dean's office if you are not certain as to the interpretation of any requirement.

DESCRIPTION OF COURSES

Courses with odd numbers are regularly offered in the first semester; courses with even numbers are regularly offered in the second semester. However, if this is not the case, a statement of this fact is made in the course description. Not all of the courses listed are offered in any one year. To determine which courses are offered the reader should consult the *Schedule of Courses.*

The number of hours listed is the number of hours a week which the class meets.

The number of credits is the number of semester hours assigned a student who receives a passing grade (A, B, C, or D for undergraduate students; A or B for graduate students) when the course is completed.

Some courses are year courses, and are continued throughout the first and second semesters. Unless otherwise noted, the student must take both semesters of such a course in order to receive credit.

The abbreviations used are, wherever possible, the first and last letter of the first word of the name of the department. Occasionally, a third letter is inserted to distinguish beween departments.

BASIC COMPREHENSIVE COURSES OF THE UNIVERSITY COLLEGE

C-1. (11-12).—American Institutions. 4 hours per week throughout the year.

Designed to develop and stimulate the ability to interpret the interrelated problems confronting American institutions. The unequal rates of change in economic life, in government, in education, in science, and in religion are analyzed and interpreted to show the need for a more effective co-ordination of the factors of our evolving social organization of today. Careful scrutiny is made of the changing functions of our institutions as joint interdependent activities so that a consciousness of the significant relationships between the individual and social institutions may be developed, from which consciousness a greater degree of social adjustment may be achieved.

C-2. (21-22).—The Physical Sciences. 3 or more hours per week throughout the year.

An attempt to survey the phenomena of the physical universe with particular reference to man's immediate environment; to show how these phenomena are investigated; to explain the more important principles and relations which have been found to aid in the understanding of them; and to review the present status of man's dependence upon and ability to utilize physical materials, forces, and relations. The concepts are taken mainly from the fields of physics, chemistry, astronomy, geology, and geography, and they are so integrated as to demonstrate their essential unity.

C-3. (31-32).—Freshman English—Reading, Speaking and Writing. 4 or more hours per week throughout the year.

Effective English—Designed to furnish the training in reading, speaking and writing necessary for the student's work in college and for his life thereafter. This training will be provided through practice and counsel in oral reading, in silent reading, in logical thinking, in fundamentals of form and style, in extension of vocabulary and in control of the body and voice in speaking. Students will be encouraged to read widely as a means of broadening their interests and increasing their ability to use English.

Eh. 133.—Effective Writing. Offered only in the second semester. 4 hours. 4 credits. CONGLETON. Prerequisite: C-3, or permission of C-3 Course Chairman.

Designed to aid the student to present his ideas in writing which is not only accurate and clear but pleasing and attractive to the reader. Students are urged to do creative work.

Eh. 134.—Contemporary Reading. Offered each semester. 4 hours. 4 credits. Prerequisite: C-3, or permission of C-3 Course Chairman.

Designed to aid the student in planning for himself a well-rounded program in reading, which will serve to keep him abreast of the best in contemporary thought. Some time will be spent in introducing each student to the bibliography and writing in the area of his special professional interest.

C-41.—Practical Logic. 3 or more hours per week during one semester. Offered each semester.

The principal aims are (1) to develop ability to think with greater accuracy and thoroughness and (2) to develop ability to evaluate the thinking of others. The material used applies to actual living and working conditions. The case method is used to insure practice, and numerous exercises are assigned.

C-42.—Fundamental Mathematics. 3 or more hours per week during one semester. Offered each semester.

A practical treatment covering the fundamentals of manipulation and analysis in algebra, geometry and related fields. The development of computational skills especially recommended by both Army and Navy for aviation cadets. Not open to students who have completed General Mathematics, Trigonometry, or Basic Mathematics.

C-421.—Trigonometry. 3 hours per week during one semester. Offered each semester.

A treatment of plane trigonometry, logarithms, spherical geometry, and spherical trigonometry. Designed especially to meet the immediate needs of students expecting to enter War service and lacking in mathematical training. Should not be taken by students who have had, or intend to take, CMs. 23. May be taken by those who have completed C-42 or three years of high school mathematics.

C-5. (51-52).—The Humanities. 4 hours per week throughout the year.

A study of man as he has expressed himself in literature, philosophy, the graphic and plastic arts, and music. Objectives—that the student shall increase his understanding and enjoyment of the arts, learn something of the methods of serious and systematic thinking, gain a more thorough understanding of the world in which he lives and of the rich and abundant experience it has to offer, and evolve for himself a serviceable philosophy of life. The main body of the course is devoted to a consideration of the basic ideas which have been most significant in man's cultural development (classicism, romanticism, realism, and idealism) as expressed in drama, poetry, fiction, music and the graphic and plastic arts.

C-6. (61-62).—Biological Science. 3 hours per week throughout the year.

The biological problems and principles associated with the organism's role as: (1) a living individual, (2) a member of a race, (3) a product of evolutionary processes, and (4) a member of a socially and economically inter-related complex of living organisms, supply the main sequence and material of the course.

DEPARTMENTAL COURSES

AERONAUTICAL ENGINEERING

***An. 381.—Aeronautics.** 3 hours. 3 credits. THOMPSON. Prerequisites: Ps. 206.

Introductory course to the field of aeronautical engineering, including: the fundamentals of aircraft with introductory aerodynamics; structural arrangement of aircraft; engine propeller types, and aircraft accessories. Chatfield, Taylor and Ober, *The Airplane and Its Engine.*

An. 481.—Aerodynamics. 3 hours. 3 credits. THOMPSON. Prerequisites: Ig. 365-366, Ml. 385. The first half of the course An. 481-482.

An. 481-482: Properties of air; airfoil characteristics; drag calculations; engine-propeller characteristics; performance calculation; stability calculations; aerodynamic problems. Milikan, *Aerodynamics of the Airplane;* N. A. C. A. Reports.

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*Not offered in 1944-45.

An. 482.—Advanced Aerodynamics. 3 hours. 3 credits. THOMPSON. The second half of the course An. 481-482.

An. 483.—Aerodynamic Laboratory. 4 hours laboratory. 1 credit. THOMPSON. Corequisite: An. 481.

Aerodynamic experimentation on models and in flight. Verification of aerodynamic theory. Methods and equipment used in aerodynamic research. Pavian, *Experimental Aerodynamics* and N. A. C. A. Reports.

An. 484.—Aircraft Instruments. 1 hour, and 3 hours laboratory. 1 credit. THOMPSON. Prerequisite: Ml. 387.

The theory of aircraft instruments and their testing in the laboratory. Notes and manufacturers reports; Patton, *Aircraft Instruments.*

An. 485.—Airplane Design. 3 hours, and 3 hours laboratory. 4 credits. THOMPSON. Prerequisite: Ig. 365, 366, 367. The first half of the course An. 485-486.

An. 485-486: Introductory airplane design; layout principles; weight and balance analysis; principles of stress analysis; the preliminary design of a selected airplane. C. A. A. bulletins, N. A. C. A. Reports; Sechler and Dunn, *Airplane Structural Analysis and Design.*

An. 486.—Airplane Design. 3 hours, and 3 hours laboratory. 4 credits. THOMPSON. Corequisite: An. 482. The second half of the course An. 485-486.

AGRICULTURAL CHEMISTRY

Acy. 125.—Agricultural Chemistry. 3 hours, and 2 hours demonstration. 4 credits. MUHLEMAN. The first half of the course Acy. 125-126.

Acy. 125-126: A basic course embodying selected fundamentals of both inorganic and organic chemistry and designed primarily for agricultural students. Suitable also for the general student who wishes a non-laboratory course in science.

Acy. 126.—Agricultural Chemistry. 3 hours, and 2 hours demonstration. 4 credits. MUHLEMAN. The second half of the course Acy. 125-126.

Acy. 203.—Analytical Chemistry. 2 hours, and 3 hours laboratory. 3 credits. Prerequisite: Acy. 125-126 or Cy. 101-102.

A brief course in qualitative analysis designed especially for agricultural students.

Acy. 204.—Analytical Chemistry. 1 hour, and 6 hours laboratory. 3 credits. Prerequisite: Acy. 203.

A brief course in quantitative analysis. The laboratory work is designed to fit the special needs of agricultural students.

Acy. 431.—Agricultural Analysis. 2 hours, and 3 or 6 hours laboratory. 3 or 4 credits. MUHLEMAN. The first half of Acy. 431-432. Prerequisite: Acy. 204 or Cy. 202.

Acy. 431-432: The quantitative analysis of agricultural products.

Acy. 432.—Agricultural Analysis. 2 hours, and 3 or 6 hours laboratory. 3 or 4 credits. MUHLEMAN. The second half of Acy. 431-432.

GRADUATE COURSES

Prerequisites: See Department of Chemistry.

Acy. 561.—Animal Bio-Chemistry. 2 hours, and 6 hours laboratory. 4 credits. MUHLEMAN.

The chemistry of animal tissues and metabolism.

Acy. 563.—Plant Bio-Chemistry. 2 hours, and 6 hours laboratory. 4 credits.

The chemistry of plant growth and metabolism.

Acy. 570.—Research in Agricultural Chemistry. 2 to 6 hours credit. MUHLEMAN.

AGRICULTURAL ECONOMICS

As. 201.—Agricultural Economics. 3 hours. 3 credits. GREENMAN.

An introduction to the field of agricultural economics; principles of economics as applied to agriculture; economic problems of the agricultural industry and the individual farmer.

***As. 302.—Agricultural Resources.** Offered only in the first semester. 2 hours, and 1 hour discussion. 3 credits. HAMILTON.

Potentialities and limitations of agricultural production in the various regions of the United States and the world. Development of surplus and deficient agricultural areas.

***As. 303.—Farm Records.** 2 hours, and 2 hours laboratory. 3 credits. GREENMAN.

Methods and practice of making farm inventories, keeping financial records, and feed and crop records.

***As. 304.—Farm Finance and Appraisal.** 2 hours. 2 credits. GREENMAN.

Problems peculiar to financing farmers and farmers' associations. Special attention is given to the Farm Credit Administration.

As. 306.—Farm Management. 2 hours, and 2 hours laboratory. 3 credits. GREENMAN.

The factors of production; systems of farming, their distribution and adaption; problems of labor, machinery, layout of farms, and farm reorganization.

As. 308.—Marketing. 2 hours, and 2 hours laboratory. 3 credits. HAMILTON.

Principles of marketing agricultural commodities; commodity exchanges and future trading; auction companies; market finance; market news; marketing of important agricultural commodities. One or two field trips at an estimated cost of $4 each to be paid by the student at the time trips are made.

***As. 311.—Rural Law.** 2 hours. 2 credits. HAMILTON.

Classification of farm property; study of farm boundaries, fences, stock laws, rents, contracts, deeds, abstracts, mortgages, taxes, and laws governing shipping of farm products.

As. 403.—Advanced Farm Management. 2 hours, and 2 hours laboratory. 3 credits. Prerequisite: As. 306. GREENMAN.

Research and extension methods in farm management; practice in taking farm surveys; study of successful farms in specialized type of farming areas in Florida. Field trips, at an estimated cost of $10, paid at time trips are made.

As. 405.Agricultural Prices. 3 hours. 3 credits. HAMILTON.

Prices of farm products and the factors affecting them.

As. 408.—Marketing Fruits and Vegetables. 2 hours, and 1 hour discussion. 3 credits. HAMILTON.

Marketing of citrus, tomatoes, beans, potatoes, and other Florida products. Two-day field trip, at an estimated cost of $10, paid at time trip is made.

As. 409.—Cooperative Marketing. 2 hours, and 1 hour discussion. 3 credits. HAMILTON.

Cooperative buying and selling organizations, their successes and failures; methods of organization, financing, and business management. Two-day field trip, at an estimated cost of $10, paid at time trip is made.

As. 410.—Agricultural Statistics. 2 hours, and 2 hours laboratory. 3 credits. GREENMAN.

The principles involved in the collection, tabulation, and interpretation of agricultural statistics.

***As. 412.—Land Economics.** 2 hours, and 2 hours laboratory. 3 credits. HAMILTON.

History of public land policies; land utilization; land reclamation; marginal and submarginal lands; and land credit. Particular attention is given to the Land Section of the National Resources Board.

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*Not offered in 1945-46.

As. 413.—Agricultural Policy. Offered only in the second semester. 3 hours. 3 credits. GREENMAN.

A history of farmer attempts and accomplishments through organization and legislation to improve the economic and social status of agriculture. Evaluation of present legislative programs and policies affecting the farmer.

***As. 414.—Terminal Markets and Commodity Exchanges.** 3 hours discussion week preceding and week following field trip, respectively. 1 credit. Prerequisite or corequisite: As. 308 or consent of instructor. Offered in alternate years. HAMILTON.

A study of marketing agricultural products in terminal markets and agricultural commodity exchanges by visitation and inspection. The week of Spring Recess will be used for visiting the markets. Estimated cost of trip $40 to $50, to be paid at time trip is made.

As. 420.—Marketing of Livestock. Identical with Al. 420. 2 hours, and 2 hours laboratory. 3 credits. SHEALY, HAMILTON.

Market classes and grades of livestock; study of firms handling livestock and distribution problems; factors affecting the price of livestock. Given jointly with the Department of Animal Husbandry. One or two field trips at an estimated cost of $2 each to be paid at time trip is made.

GRADUATE COURSES

Prerequisites: The student as a rule will have received his B.S. degree in agriculture from a college of recognized standing. The student must next satisfy one or more professors in each subject which he has chosen for major and minor study that he has the necessary preparation to pursue graduate work in that subject.

As. 501.—Agricultural Economics Seminar. 2 hours. 2 credits. NOBLE and STAFF. The first half of the course As. 501-502.

As. 501-502 is a study of recent literature and research work in agricultural economics.

As. 502.—Agricultural Economics Seminar. 2 hours. 2 credits. NOBLE and STAFF. The second half of the course As. 501-502.

As. 505.—Research Problems in Farm Management. Hours to be arranged by the Head of the Department. NOBLE, GREENMAN.

As. 506.—Research Problems in Farm Management. Hours to be arranged by the Head of the Department. NOBLE, GREENMAN.

***As. 508.—Land Economics.** 2 hours, and 2 hours laboratory. 3 credits. HAMILTON.

Rural taxation, colonization, and adjustment of rural lands to their best uses.

As. 511.—Research Problems in Marketing Agricultural Products. Hours and credit to be arranged and approved by the Head of the Department. HAMILTON.

As. 512.—Research Problems in Marketing Agricultural Products. Hours and credit to be arranged and approved by the Head of the Department. HAMILTON.

***As. 514.—Advanced Marketing of Agricultural Products.** 2 hours, and 2 hours laboratory. 3 credits. HAMILTON.

Study of private and coöperative agencies marketing agricultural products and commodities.

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*Not offered in 1945-46.

AGRICULTURAL EDUCATION

(See Education)

AGRICULTURAL ENGINEERING

Ag. 301.—Drainage and Irrigation. 2 hours, and 2 hours laboratory. 3 credits. ROGERS, F.

The drainage and irrigation of lands with treatment of the necessity for such in the production of field, fruit and vegetable crops. The cost, design, operation and upkeep of drainage and irrigation systems. Field work in laying out systems.

Ag. 302.—Farm Motors. Identical with In. 404. 2 hours, and 2 hours laboratory. 3 credits. ROGERS, F.

The general principles of operation of the various sources of farm power. The care, operation and repair of electric motors, internal combustion engines (including automobile, stationary gasoline engines, truck and tractor), and windmills. Laboratory work includes actual operation and repair.

Ag. 303.—Farm Shop. 2 hours, and 2 hours laboratory. 3 credits. ROGERS, F.

The farm shop jobs that are common to the farms of Florida. Carpentry, concrete construction, light forging, soldering, tool care and repair are some of the jobs given special emphasis. Laboratory work includes actual shop practice.

Ag. 306.—Farm Machinery. 2 hours, and 2 hours laboratory. 3 credits. ROGERS, F.

Machines that are used in the production of field, fruit and truck crops. Care, construction, operation and repair, selection of harvesting, picking, seeding, spraying and tillage machinery. Machines provided for laboratory observation and study.

Ag. 401.—Farm Buildings. 1 hour, and 2 hours laboratory. 2 credits. ROGERS, F. Offered in alternate years.

The arrangement, cost, construction, depreciation, design, location and ventilation of farm buildings.

Ag. 402.—Farm Concrete. I hour, and 2 hours laboratory. 2 credits. ROGERS, F.

The coloring, curing, mixing, placing, proportioning, reinforcing and waterproofing of concrete for farm use. Consideration of materials suitable for farm concrete work.

Ag. 403.—Agricultural Engineering Investigations. 2 hours. 2 credits. ROGERS, F. The first half of the course Ag. 403-404.

Ag. 403-404: Assigned reading and reports of recent developments in the field of agricultural engineering.

Ag. 404.—Agricultural Engineering Investigations. 2 hours. 2 credits. ROGERS, F. The second half of the course Ag. 403-404.

***Ag. 406.—Dairy Engineering.** Offered only in the first semester. 2 hours, and 2 hours laboratory. 3 credits. ROGERS, F. Offered in alternate years.

The machinery and power used in the manufacture and storage of dairy products. Shop operations necessary to operation of dairy plant considered.

Ag. 407.—Farm Shop Power Equipment. Offered only in the second semester. 1 hour, and 4 hours laboratory. 3 credits. ROGERS, F.

The care, operation and repair of both metal and wood working power shop equipment used in the construction and repair of farm buildings and machinery.

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*Not offered in 1945-46.

Ag. 408.—Soil and Water Conservation. Identical with Sls. 408. 2 hours, and 2 hours laboratory. 3 credits. ROGERS, F., SMITH, F. B. Prerequisites: Sls. 301, Ag. 301. Prerequisite or corequisite: Sls. 302.

For description see Sls. 408.

GRADUATE COURSES

Prerequisites: Bachelor's degree in Agriculture or Agricultural Engineering. A minimum of twenty semester hours in Agricultural Engineering.

Ag. 501.—Seminar. 2 hours. 2 credits. ROGERS, F.

A study of agricultural engineering problems with a review of the literature. Required of all graduate students registered in the department.

Ag. 570.—Research. 3 to 6 hours. 3 to 6 credits. ROGERS, F.

Special problems in agricultural engineering.

AGRONOMY

Ay. 321.—General Field Crops. 2 hours, and 2 hours laboratory and field demonstrations. 3 credits. SENN.

A study of the grain, fiber, sugar, peanut, tobacco, forage and miscellaneous field crops, with special emphasis on varieties and practices recommended for southern United States. The history, botanical characteristics, soil and climatic adaptations, fertilizer and culture practices, growing processes, harvesting, uses, economic production and cropping systems are topics discussed.

Ay. 324.—Forage and Cover Crops. 2 hours, and 2 hours laboratory and field demonstrations. 3 credits. SENN.

Plants that produce feed for livestock. Methods of establishing pastures and management of grazing areas. Plants suited for cover crops, conservation programs, and rotation systems of the South are considered. Field trips, topic development, and plant collections are embodied in laboratory and field demonstrations.

Ay. 325.—Exhibiting and Judging Farm Crops. 2 hours. 2 credits. SENN.

Designed to fit one to prepare exhibits and to judge competitive farm crop displays. Arrangement of exhibits, assimilation of materials and preparation of premium lists for fairs are considered. Especially adapted to students preparing for teaching agriculture in high schools, and county agent work.

Ay. 329.—Applied Genetics. 3 hours. 3 credits. SENN.

A course treating the fundamentals of inheritance, emphasizing the application of genetics and its associated branches of science in the improvement of economic plants and animals, and in programs for human betterment.

Ay. 331.—Laboratory Problems in Genetics. 4 hours laboratory. 2 credits. SENN.

Laboratory methods in applying genetic principles, with breeding experiments illustrating the laws of inheritance. Designed to be taken in conjunction with Ay. 329.

Ay. 400.—Agricultural Extension Methods. 3 hours. 3 credits. SENN.

Designed to acquaint students with the activities of the Agricultural Extension Service, including specific duties of the county agent, agricultural specialists and county, state and federal agencies contributing toward the general betterment of agricultural conditions.

Ay. 422.—Plant Breeding. 3 hours. 3 credits. SENN.

The fundamental principles of plant improvement. Field practice in artificial pollination, hybridization, and field plot technique, acquaint the student with modern methods employed in plant breeding.

Ay. 426.—Individual Problems in Agronomy. Offered both semesters. 2 hours reference or laboratory work per credit. 2 to 6 credits. SENN.

Individual problems selected from the fields of crop production, genetics, or plant breeding.

Ay. 492.—Agronomy Seminar. 1 hour. 1 credit. SENN

Assigned readings, reports and discussions of current developments in the field of plant science.

GRADUATE COURSE

Prerequisites: A student who expects to pursue graduate work in Agronomy should present the bachelor's degree from a recognized College of Agriculture, with a major in Agronomy, or the equivalent in other related sciences. This would ordinarily mean at least twenty hours, or its equivalent, of undergraduate work in the department. The student will be held responsible for such basic undergraduate courses as are deemed necessary for the pursuit of his special graduate problem.

Ay. 570.—Research in Agronomy. Credits to be arranged and approved by the Head of the Department. SENN.

Original work on definite problems in field crops and plant breeding.

ANIMAL PRODUCTION

Al. 211.—Principles of Animal Husbandry. 2 hours, and 2 hours laboratory. 3 credits. GLASSCOCK. For students majoring in departments other than Animal Husbandry. Offered only in second semester.

The place of livestock in agriculture; principles of livestock improvement; characteristics of feeds; and feeding principles.

Al. 309.—Fundamentals in Animal Husbandry. 2 hours, and 2 hours laboratory. 3 credits. WILLOUGHBY.

Types and breeds of farm animals; principles of breeding, selection and management.

Al. 311.—Elementary Nutrition. 3 hours, and 3 hours laboratory. 4 credits. MARSHALL.

Elements and compounds, metabolic processes in animal nutrition, biological assays.

Al. 312.—Feeds and Feeding. 3 hours, and 2 hours laboratory. 4 credits. BECKER and MOORE. Prerequisites: Al. 311, except by consent of instructor.

Composition of plants and animals; feeding standards and rations for farm animals and poultry.

Al. 314.—Livestock Judging. 1 hour, and 4 hours laboratory. 3 credits. PACE. Prerequisite: Al. 309, or Al. 211.

Special training in livestock judging; show ring methods; contests at fairs.

Al. 322.—Animal Breeding. 2 hours. 2 credits. WILLOUGHBY. Prerequisite: Al. 309.

Principles of breeding applied to animals; pedigree and record work; foundation and management of a breeding enterprise.

Al. 411.—Beef Production. 2 hours. 2 credits. Second semester only. GLASSCOCK. Prerequisites: Al. 211 or Al. 309 and Al. 312.

Selection, feeding and management of beef cattle; finishing and marketing.

Al. 413.—Swine Production. 2 hours, and 2 hours laboratory. 3 credits. SHEALY, PACE.

Selection, feeding and management of hogs; forage crops and grazing; disease and parasite control; slaughtering of hogs on the farm.

Al. 414.—Sheep Production. 2 hours. 2 credits. WILLOUGHBY.

Production methods with sheep and goats; breeds; management in Florida; marketing of wool.

Al. 415.—Meat Products. 1 hour, and 4 hours laboratory. 3 credits. GLASSCOCK, PACE.

Farm slaughtering and packing house methods; curing and processing of meats.

Al. 416.—World Meats. 2 hours. 2 credits. WILLOUGHBY. Prerequisites: Al. 309, 411, 413.

Meat production in other countries of the world compared with the United States.

Al. 417.—Breed History. 2 hours. 2 credits. WILLOUGHBY. Prerequisite: Al. 309.

History of breeds of beef, dairy, and dual purpose cattle; pedigree studies and registration methods.

Al. 418.—Breed History. 2 hours. 2 credits. WILLOUGHBY. Prerequisite: Al. 309.

History of breeds of horses, sheep, and swine; pedigree studies and registration methods.

Al. 419.—Horse Husbandry. 2 hours. 2 credits. WILLOUGHBY.

Raising horses and mules in the southeast; their use as farm power, multiple hitches; housing and equipment.

Al. 420.—Marketing of Livestock. Identical with As. 420. 2 hours, and 2 hours laboratory. 3 credits. SHEALY, HAMILTON.

Market classes and grades of livestock; study of firms handling livestock and distribution problems; factors affecting the price of livestock. Given jointly with the Department of Agricultural Economics. One or two field trips at an estimated cost of $2.00 each to be paid by the student at the time trips are made.

Al. 421.—Seminar. Offered each semester. 1 hour. 1 credit. STAFF. Seminar will be conducted jointly with Dairy Husbandry, Dairy Manufacturing and Poultry Husbandry groups. This course is designated for seniors.

Al. 424.—Animal Production. 3 hours. 3 credits. WILLOUGHBY.

Origin and development of the livestock and meat industries from colonial times to the present; modern management trends and prospects for the future.

GRADUATE COURSES

Prerequisites: Twenty-four hours or equivalent of approved undergraduate work in Animal Husbandry.

Al. 501.—Advanced Animal Production. 2 to 5 hours. 2 to 5 credits. GLASSCOCK and SHEALY.

Studies in the production of domestic animals; breeding, feeding, management and marketing of meat animals; processing, preparation and nutritive qualities of meat.

Al. 503.—Animal Nutrition. 3 hours. 3 credits. BECKER. Prerequisites: Al. 311 (Elementary Nutrition) and Al. 312 (Feeds and Feeding).

Relative composition of feed; digestion in ruminants; development of feeding standards; protein, energy, vitamins, and mineral elements in nutrition.

Al. 505.—Live Stock Records. 2 hours. 2 credits. WILLOUGHBY.

History of live stock in the South; method of breed associations; research on selected topics.

Al. 508.—Methods in Animal Research. 2 hours. 2 credits. BECKER.

Methods employed in nutritional, feeding and management investigations with farm animals.

Al. 509.—Problems in Animal Nutrition. 1 to 4 credits.

Al. 511.—Problems in Swine Production. 1 to 4 credits. GLASSCOCK and SHEALY.

Al. 513.—Problems in Beef Production. 1 to 4 credits. GLASSCOCK and SHEALY.

Al. 551.—Advanced Animal Nutrition. 2 to 5 hours. 2 to 5 credits. Prerequisites: Al. 311, Cy. 301 and Cy. 302.

Special topics in proteins, carbohydrates, lipids, and enzymes.

Al. 554.—Vitamins. 2 to 5 hours. 2 to 5 credits. Prerequisites: Al. 311, Cy. 301 and Cy. 302.

Historical development, properties, assays, and physiological effects.

ARCHITECTURE

Courses in the Department of Architecture are carried on by means of the problem or project method, and accomplishment is the sole criterion for advancement. Consequently, the courses are of indeterminate duration, and the time listed for each course represents merely the nominal time which the average student will need to complete the work.

Students in the Department of Architecture must complete the various courses in the sequence listed in their respective curricula. Students from other departments may, with the consent of the instructor and the approval of the Director, enroll in courses for which they have sufficient preparation.

Lower Division

Ae. 11A.—Fundamentals of Architecture. GULLEY, WEAVER.

A creative introductory course leading the student, through a study of human actions, to devise buildings in which all the arrangements, details, and materials are intended to make human activity both efficient and pleasant. The creation of buildings to meet the requirements of use is emphasized. Drawing of all kinds is taught, not in a formal manner, but as an incidental accompaniment to design. A study of principles of composition and of materials and methods of construction is an integral part of the work from the beginning. Nine projects. Nominal time, 9 hours a week for 4 semesters, or 18 hours a week for 2 semesters. (Equivalent to 12 credits.)

Upper Division

DESIGN

This work consists of the design of buildings of the type encountered in contemporary practice. In general, the problems are non-competitive in character and the time for the completion of the solutions is not fixed. Criticisms are given individually, and solutions are in the form of plans, sections, plastic models, and elevations. Other problems which are competitive in character are assigned regularly every four weeks. Such problems are solved without criticism and without references and the solutions are generally limited to nine hours.

Ae. 21A.—Architectural Design. GULLEY.

A continuation of Ae. 11A for students in Architecture. The design of simple residential, commercial, and public buildings in wood, brick, and stone with emphasis on the analysis of human requirements, the consideration of the conditions of environment, and the selection of materials for color, texture, and appropriateness. Preliminary studies, design models, and working drawings. Eight projects correlated with Projects in Architecture 1 to 8, inclusive. Nominal time, 15 hours a week for 2 semesters.

Ae. 21B.—Architectural Design. GULLEY.

A continuation of Ae. 21A for students in Architecture. The design of more complex buildings including a hospital, an airport, a two story house, a bank, a city hall, a theater, a high school and a hotel. Conferences on the theory of composition. Eight projects correlated with Projects in Architecture 9 to 16, inclusive. Nominal time, 15 hours a week for 3 semesters.

Ae. 23A.—Landscape Design. GULLEY.

A continuation of Ae. 11A for students in Landscape Architecture. The design of small properties with emphasis on the principles of landscape composition. Eight projects correlated with Projects in Landscape Architecture 1 to 8, inclusive. Nominal time, 15 hours a week for 2 semesters.

Ae. 23B.—Landscape Design. GULLEY.

A continuation of Ae. 23A for students in Landscape Architecture. The design of public and private properties including a park, a country club, high school grounds, a residential development, and two other projects. Six projects correlated with Projects in Landscape Architecture 9 to 14, inclusive. Nominal time, 15 hours a week for 2 semesters.

DELINEATION

Ae. 31A.—Freehand Drawing and Water Color. HOLBROOK.

A continuation of Ae. 11A for students in Architecture. The delineation of form in architecture with charcoal, pencil, colored pencil, water color, and pen and ink. Color theory, and a continuation of the study of perspective. Eight projects correlated with Projects in Architecture 1 to 8, inclusive. Nominal time, 6 hours a week for 2 semesters.

Ae. 31B.—Freehand Drawing and Water Color. HOLBROOK.

A continuation of Ae. 31A for students in Architecture. Outdoor sketching in pencil and water color. Eight projects correlated with Projects in Architecture 9 to 16, inclusive. Nominal time, 6 hours a week for 1 semester and 3 hours a week for 2 semesters.

Ae. 33A.—Freehand Drawing and Water Color. HOLBROOK.

A continuation of Ae. 11A for students in Landscape Architecture. Drawing in charcoal, pencil, and water color. Eight projects correlated with Projects in Landscape Architecture 1 to 8, inclusive. Nominal time, 6 hours a week for 2 semesters.

Ae. 33B.—Freehand Drawing and Water Color. HOLBROOK.

A continuation of Ae. 33A for students in Landscape Architecture. Outdoor sketching in various media. Six projects correlated with Projects in Landscape Architecture 9 to 14, inclusive. Nominal time, 6 hours a week for 2 semesters.

HISTORY

Ae. 41A.—History of Architecture. GULLEY.

For students in Architecture and Building Construction. An analytical study of the development of the art of building with emphasis on historical and other influences, materials and methods of construction, and principles of composition and planning. A study of the component parts of buildings including such structural elements as walls, roofs, openings, columns, and piers, and the decorative elements such as mouldings and ornament. Individual research, conferences, and illustrated reports. Eight projects. Nominal time, 6 hours a week for 2 semesters.

Ae. 41B.—History of Architecture. GULLEY.

For students in Architecture, Landscape Architecture, and Painting. A chronological study of the development of the art of building from ancient to modern times with emphasis on environmental influences, architectural development, and significant buildings. Individual research, conferences, and illustrated reports. Six projects. Nominal time, 6 hours a week for 2 semesters.

Ae. 41C.—Decorative Arts. GULLEY.

For students in Architecture and Painting. A study of the decorative use of various materials, especially those used in building, such as stone, ceramic products, textiles, glass, plaster, wood, and metals. Two projects. Nominal time, 6 hours a week for 1 semester.

CONSTRUCTION AND EQUIPMENT

Ae. 51A.—Materials and Methods of Construction. HANNAFORD.

A continuation of Ae. 11A for students in Architecture. A study of the materials used in the construction of buildings and of the principles governing the selection and use of such materials; methods of construction; the development of construction details, working drawings and the elements of specifications. Elementary surveying as related to buildings.

Twelve projects integrated with Projects in Architecture 1 to 12 inclusive. Nominal time, 9 hours a week for 3 semesters and 12 hours a week for ⅓ of a semester.

Ae. 51B.—Mechanical Equipment of Buildings. FULTON.

For students in Architecture. A study of plumbing, heating, ventilation and electrical installations in buildings. The design of interior wiring systems.

Four projects correlated with Projects in Architecture 11 and 12. Nominal time, 12 hours a week for ⅔ of one semester and 3 hours a week for one semester.

Ae. 52A.—Materials and Methods of Building Construction. HANNAFORD.

A continuation of Ae. 11A for students in Building Construction. A parallel course to Ae. 51A, except that added stress is placed upon construction methods and equipment instead of working drawings.

Seven projects correlated with Projects in Building Construction 1 to 7 inclusive. Nominal time, 9 hours a week for 4 semesters.

Ae. 52B.—Mechanical Equipment of Buildings. FULTON.

For students in Building Construction. A parallel course to Ae. 51B, except that added stress is placed upon construction methods and equipment and trade practices.

Five projects correlated with Projects in Building Construction 3 to 7 inclusive. Nominal time, 6 hours a week for 3 semesters.

Ae. 52D.—Working Drawings and Building Costs. FULTON.

A continuation of Ae. 11A for students in Building Construction. The preparation of working drawings. Estimating building costs. The preparation of quantity surveys.

Seven projects correlated with Projects in Building Construction, 1 to 7 inclusive. Nominal time, 6 hours a week for 4 semesters.

Ae. 53A.—Materials and Methods of Construction. HANNAFORD.

A continuation of Ae. 11A for students in Landscape Architecture. Methods of constructing walks, steps, terraces, fences, gates, walls, driveways, water supply systems, and the like. Preparation of working drawings, contour maps, and grading plans. Seven projects correlated with Projects in Landscape Architecture 5 to 8, and 12 to 14, inclusive. Nominal time, 9 hours a week for 2 semesters.

PROFESSIONAL RELATIONS

Ae. 51C.—Professional Relations and Methods. WEAVER.

For students in Architecture and Building Construction. Conferences on professional relations and on methods of modern practice. Ethics, law, specifications, and estimates. Two projects correlated with Projects in Architecture 15 and 16. Nominal time, 9 hours a week for 1 semester.

STRUCTURES

The courses in structures presuppose a satisfactory knowledge of trigonometry, algebra, analytic geometry, elementary calculus, and elementary physics. The work consists of a series of projects designed to give the student proficiency in solving the structural problems of buildings.

Ae. 61A.—Structural Design of Buildings. HANNAFORD.

For students in Architecture. Structural design as a correlated part of the planning and design of buildings. A study of the fundamental theories of statics and mechanics and their application to the structural design of the component parts of buildings. A study of the strength of building materials, external bending moments and reactions, the theories of flexure, shear, deflection and the elements of graphic statics. The design of wood and steel beams and columns.

Eight projects correlated with Projects in Architecture 1 to 8 inclusive. Nominal time, 12 hours a week for 2 semesters.

Ae. 61B.—Structural Design of Buildings. HANNAFORD.

A continuation of Ae. 61A for students in Architecture. The analysis and design of wood and steel roof trusses. The basic principles of concrete making. The study of the theory of design, procedures, structural drawings and details, bending practices and schedules for reinforced concrete building systems. The integrated and comparative design of building structures in wood, steel and reinforced concrete. An introductory study of continuity in building frames.

Eight projects correlated with Projects in Architecture 9 to 16 inclusive. Nominal time, 12 hours a week for 3 semesters.

Ae. 62A.—Structural Design of Buildings. HANNAFORD.

For students in Building Construction. The structural design of the component parts of buildings in wood and steel. A study of the fundamental theories of statics and mechanics and their application to the structural design of buildings.

Four projects correlated with Projects in Building Construction 1 to 4 inclusive. Nominal time, 9 hours a week for one semester and 12 hours a week for one semester.

Ae. 62B.—Structural Design of Buildings. HANNAFORD.

A continuation of Ae. 62A for students in Building Construction. The structural design of the component parts of buildings in wood, steel and reinforced concrete. Graphic statics and the design of wood and steel trusses and framed bents. The basic principles of concrete making. The theory of design of reinforced concrete. The design and erection of integrated building structures of wood, concrete and steel. An introductory study of continuity in building frames.

Three projects correlated with Projects 5 to 7 inclusive. Nominal time, 21 hours a week for 2 semesters.

THESIS IN ARCHITECTURE

Ae. 71A.—Thesis. WEAVER and STAFF. Prerequisite: Completion of all other requirements for the degree.

A comprehensive final project in architecture based on a program submitted by the student and approved by the faculty. The program must be approved in time to permit not less than 14 weeks for the study of the problem. The presentation will include the architectural, structural, and mechanical equipment drawings, and portions of the specifications. Models and written descriptions may accompany the solution. One project. Nominal time, 48 hours a week for 1 semester.

GRADUATE COURSE

Prerequisite: Bachelor's degree in Architecture.

Ae. 501.—Architectural Design. 18 hours design and research. 6 credits. WEAVER. The first half of the course Ae. 501-502. Prerequisite: Ae. 21B (Architectural Design).

Ae. 501-502 is a research course on a special phase of architectural design, selected by the student with approval of the Director.

Ae. 502.—Architectural Design. 18 hours design and research. 6 credits. WEAVER. The second half of the course Ae. 501-502.

Ae. 521.—Advanced Freehand Drawing. 6 hours studio. 2 credits. HOLBROOK. The first half of the course Ae. 521-522. Prerequisite: Ae. 31B (Freehand Drawing and Water Color).

Ae. 522.—Advanced Freehand Drawing. 6 hours studio. 2 credits. HOLBROOK. The second half of the course Ae. 521-522. Prerequisite: Ae. 521.

Ae. 525.—Advanced Water Color. 6 hours studio. 2 credits. GRAND. The first half of the course Ae. 525-526. Prerequisite: Ae. 31B (Freehand Drawing and Water Color).

Ae. 525-526 is a course in outdoor sketching from nature and advanced architectural rendering.

Ae. 526.—Advanced Water Color. 6 hours studio. 2 credits. GRAND. The second half of the course Ae. 525-526.

Ae. 531.—Historical Research. 2 hours. 2 credits. GULLEY. The first half of the course Ae. 531-532. Prerequisite: Ae. 41C (Decorative Arts).

Ae. 531-532 consists of research on some historical phase or phases of architecture and allied arts, determined by the student in consultation with his advisers.

Ae. 532.—Historical Research. 2 hours. 2 credits. GULLEY. The second half of the course Ae. 531-532.

Ae. 551.—Building Construction. 2 or 3 hours. 2 or 3 credits. HANNAFORD. The first half of the course Ae. 551-552. Prerequisite: Ae. 51A (Materials and Methods of Construction).

Ae. 551-552 is a research course on various types of building materials, their methods of and fitness for use in various parts of the country, with advancement of some original theories in connection with such subjects.

Ae. 552.—Building Construction. 2 or 3 hours. 2 or 3 credits. HANNAFORD. The second half of the course Ae. 551-552.

Ae. 553.—Structural Design of Buildings. 2 or 3 hours. 2 or 3 credits. HANNAFORD. The first half of the course Ae. 553-554. Prerequisite: Ae. 61B (Structural Design of Buildings).

Ae. 553-554 is a research course on a special phase of reinforced concrete or steel design and construction of buildings, with advancement of some original theories in connection with such subjects.

Ae. 554.—Structural Design of Buildings. 2 or 3 hours. 2 or 3 credits. HANNAFORD. The second half of the course Ae. 553-554.

ASTRONOMY

Aty. 241.—Descriptive Astronomy. 3 hours, and 2 hours laboratory-observing. 4 credits.

A survey of the astronomical universe. The earth as an astronomical body; the solar system; stars and nebulae; the galaxy; the constellations; astronomical instruments and their uses; amateur telescope making.

Aty. 301.—Navigation and Nautical Astronomy. 3 hours. 3 credits. Prerequisite: Plane Trigonometry or equivalent.

The geographical and astronomical principles and practices involved in determination of position at sea and in the air and in the guidance of marine and air-craft. Instruments of navigation and their use.

Aty. 305.—Marine Navigation. 3 hours. 3 credits. Prerequisite: A knowledge of elementary trigonometry and logarithms.

Aty. 305-306. An intensive course utilizing the same instructional procedures and covering the same topics as are involved in the instruction of midshipmen in the U. S. Naval Reserve and at the U. S. Naval Academy. Topics studied include charts, the compass, dead reckoning piloting, nautical astronomy, celestial navigation, navigational instruments, the navigator's work at sea. Much practical work is involved.

Aty. 306.—Marine Navigation. 3 hours. 3 credits. Prerequisite: Aty. 305.

A continuation of Aty. 305.

BACTERIOLOGY

Bcy. 301.—General Bacteriology. Offered each semester. 2 hours, and 4 hours laboratory. 4 credits. CARROLL. Prerequisites: C-6, or equivalent; Cy. 101-102, or Acy. 125-126.

Morphology, physiology and cultivation of bacteria and related micro-organisms. Frobisher, *Fundamentals of Bacterioloy*, 3d. Ed.

Bcy. 302.—Agricultural Bacteriology. 1 hour, and 4 hours laboratory. 3 credits. CARROLL. Prerequiste: Bcy. 301.

Bacteria and associated micro-organisms in relation to water, milk, silage and farm problems.

Bcy. 304.—Pathogenic Bacteriology. 2 hours, and 4 hours laboratory. 4 credits. CARROLL. Prerequisite: Bcy. 301.

Recognition, culture, and special laboratory technique of handling pathogens and viruses; theories and principles of immunity and infection. Jordan & Burrows; *Text of Bacteriology*, 13th Ed.

Bcy. 306.—Bacteriology of Foods. 2 hours, and 4 hours laboratory. 4 credits. CARROLL. Prerequisite: Bcy. 301.

Relation of bacteria, yeast, molds and other micro-organisms to preservation and spoilage of foods. Tanner, *Microbiology of Foods*. 2d Ed.

Bcy. 308.—Sanitary Laboratory Practice. Offered only in the first semester. 1 hour, and 4 hours laboratory. 3 credits. CARROLL. Corequisite: Cy. 215.

Problems in sewage and public sanitation, designed primarily for sanitary engineers. American Public Health Association and American Water Works Association, *Standard Methods for Examination of Water and Sewage*, and Gainey, *Microbiology of Water and Sewage*.

Bcy. 402.—Dairy Bacteriology. 2 hours and 4 hours laboratory. 4 credits. CARROLL. Prerequisite: Bcy. 301.

Consideration of bacteria and related micro-organisms encountered in milk and dairy products; milk spoilage, milk fermentation; bacteriology of butter, ice cream, cheese; standard methods of milk analysis and dairy inspection. Hammer, *Dairy Bacteriology*.

Bcy. 411.—Principles and Practices of Immunology. 2 hours, and 4 hours laboratory. 4 credits. CARROLL. Prerequisite: Bcy. 301.

Consideration of preparations and therapeutic uses of biologicals from a bacteriological standpiont; diagnostic tests. Sherwood, *Immunity*, 2d Ed.

Bcy. 412.—Industrial Bacteriology. 2 hours, and 4 hours laboratory. 4 credits. CARROLL. Prerequisite: Bcy. 301.

Consideration of principles and problems in industrial bacteriology; isolation, cultivation and classifications of organisms concerned. Prescott & Dunn, *Industrial Microbiology*.

Bcy. 440.—Special Bacteriology and Sanitation. 2 lectures, 2 laboratory periods. 4 credits. CARROLL, CREIGHTON, ROGERS. (See also Ey. 450.)

Treats the algae and related organisms (Limnology), Protozoan Disease Agents, Virus Disease agents, and Bacterial pollution. Emphasis is placed on means of spread and prevention of each disease—Mosquito, fly, flea, louse, and tick abatement.

GRADUATE COURSES

Prerequisites:

1. Bachelor's degree.
2. At least twenty semester hours in bacteriology.

Bcy. 500.—Advanced Bacteriology. 2 hours laboratory and library work for each semester credit desired. 4 to 8 credits allowed per semester. CARROLL. Prerequisite: 2 undergraduate courses in Bacteriology.

Problems in Pathogenic, Dairy, Sanitary, Industrial, Food and Soil Bacteriology. Open to seniors and graduate students as major or minor material.

Bcy. 570.—Research in Bacteriology. 2 hours work per week required for each credit desired. CARROLL. Prerequisite: Bcy. 500.

A study of methods and their application in research problems in different fields of Bacteriology. Required of graduate majors.

BAND

(See Music)

BIBLE

Be. 303.—World's Great Religions. 2 hours. 2 credits.

A scientific, sympathetic and critical study of the religions of preliterate groups, and of India, China, Japan and Persia. Recent trends.

Be. 304.—World's Great Religions. 2 hours. 2 credits.

Continuation of Be. 303. Study of Ancient and modern Judaism, Christianity (with its many sub-divisions), Islam and certain modern cults. Recent trends.

Be. 305.—How to Understand the Bible. 2 hours. 2 credits.

A brief survey of how we got the Bible. A study of the evolution of three fundamental ideas in the Hebrew-Christian literature: God, Man, Right and Wrong.

Be. 306.—How to Understand the Bible. 2 hours. 2 credits.

Acquiring a familiarity with Biblical literature by tracing the development of such fundamental ideas as Suffering, Fellowship, Immortality.

***Be. 309.—Biblical Geography and History.** 3 hours. 3 credits.

An introduction to a more intensive study of Biblical literature. Emphasis on the geography of Palestine and its relations to Assyria, Babylonia and Egypt. Growth of Old Testament literature as affected by these civilizations.

***Be. 310.—Biblical Geography and History.** 3 hours. 3 credits.

The influence of Persian, Greek, and Roman cultures on Jewish religion and the rise of Christianity. A brief survey of the Apocalyptic movement and its literature.

***Be. 403.—Old Testament Literature.** 3 hours. 3 credits.

A survey of Old Testament writings dealing with histories, laws, and legends of Israel, authorship and composition of books, the united and divided kingdoms and the dominating leaders, showing historical sequence and spiritual affiliation.

Be. 404.—Prophets of Israel. 3 hours. 3 credits.

A study of the background and message of the creative personalities in Hebrew and Jewish religious life. The relation of prophetic thought to present day problems; the study of a great religious movement and how it affected ethics, morality and religion.

***Be. 405.—New Testament Writings.** Offered only in the second semester. 3 hours. 3 credits.

A study of the New Testament writings dealing with their background, authorship, occasion, content, and purpose.

Be. 406.—Life of Jesus. Offered only in the first semester. 3 hours. 3 credits.

An introduction to the main facts in the life of Jesus and to a general knowledge of the Gospel literature.

***Be. 412.—Early Christianity.** 3 hours. 3 credits.

A general concept of the rise of the Christian movement and the organization of the Christian Church.

BIOLOGY

Students planning to major in Biology should, if possible, arrange to take C-6 during the freshman year and C-2 during the sophomore year. All students in the College of Arts and Sciences who major in Biology will take Bly. 101-102, 209, 210, 325 and 332. Any exceptions to the above regulations will require the approval of the head of the department. Students who pursue graduate work in Biology will be required to have had Bly. 425-426.

Students who expect to present Biology as a part of a group major must have the approval of the department for the combination of courses taken in Biology. Ordinarily the acceptable combination will be chosen from Bly. 101, 102, 209, 210, 325, 332, 416, 425 and 426.

The minimum premedical requirement in Biology may be satisfied by C-6, Bly. 101 and 209. In addition, Bly 210, 102 and 325 are strongly advised and one or more of these are required by certain medical schools.

Bly. 101 is a prerequisite for Bly. 209, 210 and 310. Bly. 101 and 102 are prerequisites for most of the other courses in the department.

Courses marked (**) are "service courses" offered by the Department of Biology for the special needs of various groups of students. These courses do not give credit toward a major or group major except by the specific permission of the Head of the Department.

Bly. 101.—General Animal Biology. 2 hours and 4 hours laboratory. 3 credits. ROGERS, J. S., and STAFF. Pre- or co-requisite: C-6. Credit for 101 *and* 102, dependent upon a "C" or better in C-6.

Bly. 101 and 102: An introduction to the morphology, physiology, development and classification of animals. Designed to complement and extend the account of Biology given in C-6, and to provide the necessary training in laboratory methods and viewpoint for more advanced work in Biology. The laboratory for Bly. 101 provides a detailed study of the morphology of the frog, and the lectures and assigned readings are concerned with the evolution and biology of vertebrate animals. Bly. 102 is an account of the chief patterns of morphology and life history of the invertebrates. Each course is complete in itself and may be taken singly or in either order.

Bly. 102.—General Animal Biology. 2 hours, and 4 hours laboratory. 3 credits. BYERS. The second half of the course Bly. 101-102.

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*Not offered in 1945-46.

**Bly. 133.—Common Animals and Plants of Florida. 1 hour, and 4 hours laboratory. 3 credits. HUBBELL.

Designed to provide a recognition of and an acquaintance with some of the more common animals and plants of Florida. Especially planned to prepare teachers to answer the question, "What animal—or what plant—is that?" Individual work in the field and the making of a personal reference collection of plants and animals is encouraged.

**Bly. 134.—The Life of the Inland Water of Florida. 1 hour, and 4 hours laboratory. 3 credits. ROGERS.

A companion course to Bly. 133 but concerned with the common plants and animal life of our streams, pools, ponds, lakes and marshes. Particular attention is given to obtaining an acquaintance with those species and groups of organisms that comprise the more important, more conspicuous, and more interesting members of Florida's rich aquatic biota. Laboratory demonstrations, field trips and individual projects will form an important part of this course.

**Bly 140.—Animal Parasites of Importance in Florida. 3 hours, and 3 hours laboratory. 4 credits. BYERS.

A study of those protozoon and helmenthic parasites common to man in Florida; and the entomology of mosquitoes, fleas, flies, ticks, bedbugs, lice, etc., together with a study of means of their control. Designed for field-workers in Public Health and Sanitation.

Bly. 209.—Comparative Vertebrate Anatomy. Offered only in the second semester. 2 hours, and 6 hours laboratory. 4 credits. SHERMAN. Prerequisite: Bly. 101.

The morphology and classification of chordate animals.

Bly. 210.—Vertebrate Embryology. Offered only in the first semester. 2 hours, and 6 hours laboratory. 4 credits. SHERMAN. Prerequisite: Bly. 209.

Bly. 310.—Mammalian Anatomy and Physiology. 2 hours, and 6 hours laboratory. 4 credits. SHERMAN. Prerequisite: Bly. 209 or consent of instructor.

Lectures on the physiology and anatomy of the mammalian body supplemented by individual dissections of the cat.

Bly. 325.—Genetics and Evolution. 3 hours. 3 credits. ROGERS, J. S. Prerequisite: Bly. 101-102.

An introduction to the data and methods of genetics with special reference to their bearing on the problems of organic evolution.

Bly. 332.—Invertebrate Zoology. 3 hours, and 4 hours laboratory. 4 credits. BYERS. Prerequisite: Bly. 101-102.

An advanced survey of the morphology, developmental stages and classification of the invertebrate phyla.

Bly. 351.—Biological Laboratory Techniques. 1 hour, and 6 hours laboratory. 3 credits. STAFF. Prerequisite: 3 semesters of laboratory work in biology and permission of instructor.

The theory and use of the microscope and various microscopic accessories; the preparation and examination of microscopic materials.

Bly. 411.—Individual Problems in Animal Biology. 2, 3, or 4 credits. STAFF. The first half of the course Bly. 411-412. Prerequisite: At least 16 credits in approved major courses in Biology and permission of the Head of the Department.

Bly. 411-412: Qualified students and the instructor concerned may choose a particular topic or problem for study in one of the following fields: Animal Ecology, Limnology (Rogers); Entomology, Zoögraphy (Hubbell); Embryology, Mammalian Morphology (Sherman); Advanced Invertebrates, Parasitology (Byers); Laboratory Technique, Arachnida (Wallace); Herpetology, Ichthyology (Carr); Crustacea (Hobbs).

Bly. 412.—Individual Problems in Animal Biology. 3 credits. STAFF. The second half of the course Bly. 411-412.

Bly. 416.—Animal Parasitology. 3 hours and 3 hours laboratory. 4 credits. BYERS. Prerequisite: Bly. 209 or Bly. 332.

The animal organisms, especially the Protozoa and worms, that cause disease in man and the higher vertebrates.

Bly. 425.—Field Biology. 2 hours, and all of Saturday for field or laboratory work. 4 credits. ROGERS, J. S., and HUBBELL. The first half of the course Bly. 425-426. Prerequisite: Bly. 332 or the equivalent.

Bly. 425-426: Animal life of northern Florida, with particular reference to the Arthropods. An introduction to bio-ecology and field methods. The acquirement of a recognition knowledge of the more common terrestrial and aquatic animals is accompanied by field and laboratory work in animal ecology and field biology.

Bly. 426.—Field Biology. 2 hours, and all of Saturday for field or laboratory work. 4 credits. ROGERS, J. S., and HUBBELL. The second half of the course Bly. 425-426.

GRADUATE COURSES

Graduate majors in Biology are limited to certain specific fields, determined by departmental and library facilities and the special interests and training of the departmental staff. In general these fields are: life history, ecological, distributional and taxonomic studies on approved groups of the local fauna; the ecological factors and biotic relationships of Florida habitats, and certain problems in mammalian and invertebrate embryology and morphology. In addition a special M.S. curriculum which stresses a knowledge of basic courses and an acquaintance with the local biota is available for qualified applicants, who are looking toward high school and Junior College teaching.

Prerequisites: Approximately thirty hours of approved undergraduate courses in Animal Biology, including at least a one-semester course in each of the following: Comparative Vertebrate Morphology, Embryology, Invertebrate Zoology, Genetics, and Field Biology. Students not meeting the above requirements will be required to make up any deficiency early in their graduate work.

In addition, it is strongly advised that the student have completed at least three semester courses in two of the following fields: Botany, Chemistry, Forestry, Geology, Physics, Psychology, and Soil Science.

The Department of Biology has retained the foreign language requirement for all graduate degrees.

Bly. 505.—History of Biology. 2 hours. 2 credits. ROGERS, J. S. Prerequisite: An undergraduate major in biology. Required of all graduate majors in the department.

Bly. 506.—Biological Literature and Institutions. 2 hours. 2 credits. ROGERS, J. S. Required of all graduate majors. Prerequisite: Bly. 505.

A review of the compendia, journals and bibliographic sources in the various fields of biology and a survey of the workers, collections, and special fields of research of some of the more important laboratories and museums of zoology. Considerable emphasis will be placed upon the preparation of reports and digests, and the use of bibliographic sources.

Bly. 507.—Taxonomic Studies. 1 hour, and 6 or 12 hours laboratory. 3 to 5 credits. ROGERS, J. S., HUBBELL, SHERMAN, BYERS, CARR, or HOBBS. The first half of the course Bly. 507-508.

Bly. 507-508 is a detailed classification of a selected group of animals, well represented in the local fauna.

Bly. 508.—Taxonomic Studies. 1 hour, and 6 or 12 hours laboratory. 3 to 5 credits. ROGERS, J. S., HUBBELL, SHERMAN, BYERS, CARR, or HOBBS. The second half of the course Bly. 507-508.

Bly. 509.—Zoogeography. 2 hours. 2 credits. HUBBELL.

Bly. 510.—Animal Ecology. 2 hours, and 1 or 2 half days of field or laboratory. 3 or 4 credits. ROGERS, J. S. Ordinarily Bly. 509 and 510 should be taken in sequence.

Lectures and discussions on the principles and methods of ecology with special reference to animals; field and laboratory work on the ecological measurements of the physical factors and observations on the biota of representative Florida habitats.

Bly. 511.—Florida Wild Life. 2 hours, and 6 hours field and laboratory work. 3 credits. STAFF. The first half of the course Bly. 511-512. Prerequisite: Bly. 425-426 (Field Biology) and permission.

Bly. 511-512 covers studies in the application of ecological principles to specific wild-life research and to the practice of wild-life conservation.

Bly. 512.—Florida Wild Life. 2 hours, and 6 hours laboratory work. 3 credits. STAFF. The second half of the course Bly. 511-512.

Bly. 513.—Vertebrate Morphology. 1 hour, and 6 or 12 hours laboratory. 3 or 5 credits. SHERMAN. Prerequisite: An undergraduate major in biology, including Bly. 210 (Vertebrate Embryology).

Bly. 514.—Vertebrate Morphology. 1 hour, and 6 or 12 hours laboratory. 3 or 5 credits. SHERMAN. Prerequisite: Bly. 513.

Bly. 515.—Invertebrate Morphology. 1 hour, and 6 or 12 hours laboratory. 3 or 5 credits. HUBBELL or BYERS. Prerequisite: An undergraduate major in biology, including a course in Invertebrate Zoology.

Bly. 516.—Invertebrate Morphology. 1 hour, and 6 or 12 hours laboratory. 3 or 5 credits. HUBBELL or BYERS. Prerequisite: Bly. 515.

Bly. 519.—Individual Problems in Animal Biology. Hours and credits to be arranged. Thesis required. ROGERS, J. S., HUBBELL, SHERMAN, or BYERS. The first half of the course Bly. 519-520. Prerequisite: An approved major in biology.

Bly. 519-520 is required of all applicants for the master's degree. Each applicant undertakes an approved individual problem in biology the results of which will be embodied in a master's thesis. Such problems will be carried out under direction of a member of the staff. Problems may be chosen from one of the following fields: vertebrate or invertebrate morphology or embryology; classification or taxonomy of certain approved groups; natural history or distribution of a selected group of local animals; investigations of animal habitats in the Gainesville area.

Bly. 520.—Individual Problems in Animal Biology. Hours and credits to be arranged. ROGERS, J. S., HUBBELL, SHERMAN, or BYERS. The second half of the course Bly. 519-520.

Bly. 521.—Natural History of Selected Animals. 1 hour, and 6 or 12 hours laboratory or field work. 3 or 5 credits. ROGERS, J. S., HUBBELL, SHERMAN, or BYERS. The first half of the course Bly. 521-522. Prerequisite or corequisite: Bly. 510.

Bly. 521-522 is a detailed study of the life history or life histories and ecological relationships of some species or natural group of local animals.

Bly. 522.—Natural History of Selected Animals. 1 hour, and 6 or 12 hours laboratory or field work. 3 or 5 credits. ROGERS, J. S., HUBBELL, SHERMAN, or BYERS. The second half of the course Bly. 521-522.

Bly. 523.—Natural History of Selected Animals. A second year continuation of Bly. 521-522. Hours and credits to be arranged.

Bly. 524.—Natural History of Selected Animals. Hours and credits to be arranged. Prerequisite: Bly. 523.

Bly. 533.—Problems and Concepts of Taxonomy and Nomenclature. 2 hours. 2 credits. ROGERS, J. S., or HUBBELL. The first half of the course Bly. 533-534. Prerequisites: Bly. 325 (Genetics and Evolution) and Bly. 507-508.

Bly. 533-534: A critical study of selected taxonomic synopses, revisions, and monographs with special reference to the bearing of the principles and concepts of distribution, genetics, and ecology on taxonomic problems.

Bly. 534.—Problems and Concepts of Taxonomy and Nomenclature. 2 hours. 2 credits. ROGERS, J. S., or HUBBELL. The second half of the course Bly. 533-534.

BOTANY

Bty. 303.—General Botany. 2 hours, and 2 hours laboratory. 3 credits. CODY. The first half of course Bty. 303-304.

Bty. 303-304: A study of the form, structure, growth, reproduction, physiology and functions of plants and their various organs; relation of plants to their environment and to each other; principles underlying inheritance, variation and organic evolution. Required of students majoring in Botany, Bateriology and Plant Pathology. Holman & Robbins, *Textbook of General Botany.* 4th Edition.

Bty. 304.—General Botany. 2 hours, and 2 hours laboratory. 3 credits. CODY. The second half of course Bty. 303-304.

Bty. 308.—Taxonomy. 2 hours, and 4 hours laboratory. 4 credits. CODY. Prerequisites: Bty. 303-304. Desirable prerequisites: Sls. 301, Bty. 311.

Identification of common seed plants and ferns of the Gainesville region. Frequent field trips will be made for study of vegetation. Grays, *New Manual of Botany,* 7th Edition.

Bty. 311.—Plant Physiology. 2 hours, and 4 hours laboratory. 4 credits. CODY. Prerequisites: One semester of General Botany; Acy. 125-126, or equivalent. Desirable prerequisites: Sls. 301, Ps. 211, Pt. 321.

Absorption, assimilation, transpiration, metabolism, respiration, and growth of plants. Maximov, *Plant Physiology,* 2d Edition.

Bty. 401.—Plant Ecology. Offered only in second semester. 1 hour, and 6 hours laboratory. 4 credits. CODY. Prerequisites: Bty. 308, Bty. 311, Sls. 301 or Sls. 302.

Relation of plants to environment; plant associations and their successions. MacDougal, *Plant Ecology.*

Bty. 431.—Plant Histology. 2 hours, and 4 hours laboratory. 4 credits. CODY. Prerequisite: Bty. 303-304 or equivalent.

Methods and practice in killing, fixing, sectioning, and staining of plant tissues and organs. Assignment of special plant materials. Chamberlain, *Methods in Plant Histology.*

Bty. 432.—Plant Anatomy. 2 hours, and 4 hours laboratory. 4 credits. CODY. Prerequisite: Bty. 303-304 or equivalent. Desirable prerequisite: Bty. 431.

Origin, structure and function of principal tissues and organs of plants. Eames & McDaniels, *Introduction to Plant Anatomy.*

Bty. 440.—Special Botany and Sanitation. 2 lectures, and 2 laboratory periods. 4 credits. CODY, CREIGHTON, EMERSON, PHELPS, the College of Engineering cooperating.

Studies of algae and related organisms (Limnology) often found in water, insects affecting the health of man and engineering principles applicable to sanitary Engineering, Entomology, Botany, Health Education, Sociology and Agriculture.

GRADUATE COURSES

Prerequisites:

1. Bachelor's degree.
2. At least twenty semester hours in botany.

Bty. 500.—Advanced Botany. 8 hours field or laboratory work. 4 credits per semester. CODY. Prerequisites: At least one introductory course or advanced course in the particular field of special study as approved by head of department and instructor.

Special problems assigned in one or more of the subjects in advanced botany, depending on the requirements of the minor or major student in botany.

Bty. 555.—Botany Seminar. 1 hour. 1 credit. STAFF.

This course is a study of the literature on various phases of Bacteriology, Botany and Plant Pathology, and of research methods. Required of graduate majors in Bacteriology, Botany, or Plant Pathology.

Bty. 570.—Research in Botany. 8 hours of laboratory or field work. 4 credits per semester. CODY. Prerequisites: (one or more subjects) Bty. 500.

A study of methods of research in Botany and conducting research on assigned problems. Required of all majors in Botany.

BUSINESS ADMINISTRATION

(See Economics and Business Administration)

BUSINESS EDUCATION

Note: These courses do not count as credit in Education.

BEn. 81.—Introductory Typewriting. Offered each semester. 4 hours laboratory. 2 credits. MOORMAN.

Introduction to touch typewriting; practice upon personal and business problems.

BEn. 91.—Introductory Shorthand. Offered each semester. 5 hours. 2 credits. MOORMAN.

Introduction to Gregg Shorthand by the functional method.

BEn. 94.—Stenography. Offered each semester. 8 hours laboratory. 4 credits. MOORMAN.

Advanced course in shorthand and typewriting. Designed for those who desire more instruction than is given in the elementary or introductory courses in shorthand and typewriting for personal use, as well as for those who desire certification in the commercial subjects.

BEn. 98.—Office Practice and Management. 2 hours, and 2 hours laboratory. 3 credits. MOORMAN.

This couse is designed to acquaint the student with office practices and procedures. Areas covered will include business letters, communications, typewriting techniques, filing information, summeries and reports, kinds and uses of office machine, transportation and travel information, business and office organization, business etiquette and ethics.

CHEMICAL ENGINEERING

*Cg. 342.—**Fuels.** 7 hours. 3 credits. Prerequisites: Cy. 102 and CMs. 24.

A study, with laboratory tests following A.S.T.M. methods, of the three major fuels, coal, oil and gas.

Cg. 345.—**Industrial Stoichiometry.** 3 hours. 3 credits. MORGEN. Prerequisites or corequisites: Cy. 202, Ms. 354, Ps. 206.

Cg. 345-346: Industrial processes and calculations. Hougen and Watson, *Chemical Process Principles*, Part I.

Cg. 346.—**Industrial Stoichiometry.** 3 hours. 3 credits. MORGEN. The second half of the course Cg. 345-346.

Cg. 361.—**Materials of Engineering.** 3 hours. 3 credits. BEISLER. Prerequisites: Cy. 102, Ps. 206.

Production, properties and uses of ferrous and non-ferrous metals and alloys, cement, brick, plastics, timber, etc.

Cg. 443.—**Chemical Engineering Laboratory.** 6 hours. 2 credits. BEISLER. The first half of the course Cg. 443-444. Prerequisite: Cg. 447.

Cg. 443-444: Experiments in chemical engineering operations.

Cg. 444.—**Chemical Engineering Laboratory.** 6 hours. 2 credits. BEISLER. The second half of the couse Cg. 443-444. Prerequiste: Cg. 448.

Cg. 447.—**Principles of Chemical Engineering.** 3 hours. 3 credits. BEISLER. The first half of the course Cg. 447-448. Prerequisite: Cg. 346.

Cg. 447-448: Fundamental chemical engineering operations. Badger and McCabe, *Elements of Chemical Engineering.*

Cg. 448.—**Principles of Chemical Engineering.** 3 hours. 3 credits. BEISLER. The second half of the course Cg. 447-448.

Cg. 449.—**Unit Processes.** 3 hours. 3 credits. TYNER. Prerequisite: Cg. 448 and Cy. 302.

An introduction to the unit processes. Groggins, *Unit Processes.*

Cg. 457.—**Chemical Engineering Design.** 1 hour, and 3 hours laboratory or its equivalent. 2 credits. MORGEN. The first half of the course Cg. 457-458. Corequisite: Cg. 448.

Cg. 458.—**Chemical Engineering Design.** 1 hour, and 3 hours laboratory or its equivalent. 2 credits. MORGEN. The second half of the course Cg. 457-458.

Cg. 467.—**Chemical Engineering Thermodynamics.** 3 hours. 3 credits. MORGEN. The first half of the course Cg. 467-468. Prerequisites: Cy. 402, calculus, and Cg. 447.

Cg. 467-468: Fundamental applications of thermodynamics to chemistry and chemical engineering.

Cg. 468.—**Chemical Engineering Thermodynamics.** 3 hours. 3 credits. MORGEN. The second half of the course Cg. 467-468.

GRADUATE COURSES

Requirements for admission to graduate work for those students holding the degree of B.Ch.E., or its equivalent, who desire to major in chemical engineering:

1. Such students may become candidates for the degree of Master of Science in Engineering.

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*Not offered in 1945-46.

2. The following courses, or their equivalents, are required for unconditional entrance to graduate work in chemical engineering. Courses in each of the four fundamental branches of chemistry (inorganic, analytical, organic and physical); one hour of chemical literature; six hours of chemical engineering thermodynamics; four hours of chemical engineering design; ten hours of unit operations, including laboratory work.

3. Each graduate student, registering for the first time, must take comprehensive written or oral examinations over the field of chemical engineering. These examinations are given during registration week. The results of these examinations are utilized by the Special Supervisory Committee in arranging the student's study program.

Cg. 511.—Advanced Chemical Engineering. 3 hours or its equivalent. 3 credits. BEISLER or MORGEN.

The fundamental principles involved in the manufacture of Organic Compounds.

Cg. 512.—Advanced Chemical Engineering. 3 hours or its equivalent. 3 credits. BEISLER or MORGEN.

Problems and discussions on unit operations of chemical engineering including the application of economic balance to design and operation.

Cg. 521.—Special Topics in Chemical Engineering. 3 hours or its equivalent. 3 credits. BEISLER or MORGEN. The first half of the course Cg. 521-522.

Cg. 521-522 is an intensive and critical study of certain chemical engineering operations and processes.

Cg. 522.—Special Topics in Chemical Engineering. 3 hours or its equivalent. 3 credits. BEISLER or MORGEN. The second half of the course Cg. 521-522.

Cg. 531.—Advanced Chemical Engineering Thermodynamics. 3 hours or its equivalent. 3 credits. MORGEN.

Advanced problems in the application of Thermodynamics to industrial processes.

Cg. 541.—Advanced Unit Operations. 3 hours or its equivalent. 3 credits. BEISLER.

Selected comprehensive problems in the field of Unit Operations.

CHEMISTRY

Cy. 101.—General Chemistry. Offered each semester. 3 hours, and 3 hours laboratory. 4 credits. JACKSON, OTTE. The first half of the course Cy. 101-102.

Cy. 101-102: Fundamental laws and theories of chemistry. Non-metallic elements and their compounds; metals and their compounds and some of their uses. NOTE: This course is required for all students who intend to enter the College of Engineering or the School of Pharmacy and for those who major in Chemistry in the Upper Division.

Cy. 102.—General Chemistry. Offered each semester. 3 hours, and 3 hours laboratory. 4 credits. JACKSON, OTTE. The second half of the course Cy. 101-102.

Cy. 111.—General Chemistry. 1 hour or its equivalent. 1 credit. JACKSON. The first half of course Cy. 111-112. Corequisite: Cy. 101.

Cy. 111-112: Assigned readings for orientation and guidance in chemistry and laboratory experiments.

Cy. 112.—General Chemistry. 3 hours laboratory. 1 credit. JACKSON. The second half of course Cy. 111-112. Corequisite: Cy. 102.

Cy. 201.—**Analytical Chemistry** (Mainly Qualitative). Offered each semester. 3 hours, and 3 hours laboratory. 4 credits. HEATH, HAWKINS. The first half of the course Cy. 201-202. Prerequisite: Cy. 102 or a grade of at least B in Acy. 126.

Cy. 201-202: Theoretical principles and laboratory technique involved in the qualitative detection and quantitative determination of the common metals and acid radicals.

Cy. 202.—**Analytical Chemistry** (Quantitative). Offered each semester. 2 hours, and 6 hours laboratory. 4 credits. BLACK, HEATH. The second half of the course Cy. 201-202.

Cy. 203.—**Analytical Chemistry** (Qualitative). 1 hour, and 6 hours laboratory. 3 credits. HEATH. The first half of course Cy. 203-204. Prerequisite: Cy. 102 or Acy. 126.

Cy. 203-204: A course in quantitative and qualitative analysis offered primarily for students of pharmacy.

Cy. 204.—**Analytical Chemistry** (Quantitative). 2 hours, and 3 hours laboratory. 3 credits. HEATH. The second half of the course Cy. 203-204.

Cy. 211.—**Analytical Chemistry** (Qualitative). 3 hours laboratory. 1 credit. HEATH. The first half of course Cy. 211-212. Prerequisite: Cy. 201.

Cy. 211-212: Laboratory procedures in analytical chemistry.

Cy. 212.—**Analytical Chemistry** (Quantitative). 6 hours laboratory. 2 credits. BLACK. The second half of course Cy. 211-212. Prerequisite: Cy. 202.

Cy. 215.—**The Chemistry of Water Treatment.** 2 hours, and 3 hours laboratory. 3 credits. BLACK. Prerequisite: Cy. 101-102.

A theoretical and practical study of the examination and treatment of water and sewage.

*Cy. 262.—**Organic Chemistry.** Offered only in the first semester. 3 hours, and 6 hours laboratory. 5 credits. POLLARD. Prerequisite: Cy. 101-102.

A brief elementary course embracing the more important aliphatic and aromatic compounds.

Cy. 301.—**Organic Chemistry.** 3 hours, and 3 hours laboratory. 4 credits. LEIGH. The first half of the course Cy. 301-302. Prerequisite: Cy. 102, 202.

Cy. 301-302: Preparation and properties of the various aliphatic and aromatic compounds.

Cy. 302.—**Organic Chemistry.** 3 hours, and 3 hours laboratory. 4 credits. LEIGH. The second half of the course Cy. 301-302.

Cy. 311.—**Organic Chemistry.** 3 hours laboratory. 1 credit. LEIGH. The first half of course Cy. 311-312. Corequisite: Cy. 301.

Cy. 311-312: Elementary Organic Syntheses and Organic Qualitative Analysis.

Cy. 312.—**Organic Chemistry.** 3 hours laboratory. 1 credit. LEIGH. The second half of course Cy. 311-312. Corequisite: Cy. 302.

Cy. 401.—**Physical Chemistry.** 3 hours, and 3 hours laboratory. 4 credits. HAWKINS. The first half of the course Cy. 401-402. Prerequisites: One year of College Physics, Cy. 202, Ms. 353-354.

Cy. 401-402: Matter in the three states, elementary thermodynamics, solutions, colloids, electricity as applied to chemistry, homogeneous and heterogeneous equilibria, chemical kinetics, photochemistry, introduction to quantum theory.

Cy. 402.—**Physical Chemistry.** 3 hours, and 3 hours laboratory. 4 credits. HAWKINS. The second half of the course Cy. 401-402.

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*Pre-Medical students should take Cy. 301-302 rather than Cy. 262.

Cy. 403.—Water Analysis. 1 hour, and 6 hours laboratory. 3 credits. BLACK. Prerequisite: Cy. 202.

Analysis of waters to determine their potability and fitness for steam raising and other purposes.

Cy. 411.—Advanced Chemistry. 2 hours and 3 hours laboratory. 3 credits. BLACK, POLLARD, HAWKINS. The first half of course Cy. 411-412. Corequisite: Cy. 401.

Cy. 411-412: Studies in Stoichiometrical and Theoretical Chemistry.

Cy. 412.—Advanced Chemistry. 2 hours and 3 hours laboratory. 3 credits. BLACK, POLLARD, HAWKINS. The second half of course Cy. 411-412. Corequisite: Cy. 402.

Cy. 462.—Photographic Chemistry. 3 hours. 3 credits. HEATH. Prerequisites: Cy. 262, or 302; college physics, or suitable photographic experience.

Theory and practice of photographic processes and materials, and their uses.

Cy. 481.—Chemical Literature. One-half hour or its equivalent. ½ credit. POLLARD. The first half of the course Cy. 481-482. Prerequisite: 3 years of chemistry. A reading knowledge of French and German is desirable.

Cy. 481-482: A general study of the present sources of published chemical information.

Cy. 482.—Chemical Literature. One-half hour or its equivalent. ½ credit. POLLARD. The second half of the course Cy. 481-482.

GRADUATE COURSES

Prerequisites: The following courses or their equivalents: General Chemistry—eight semester hours; Analytical chemistry—eight semester hours; Organic chemistry—eight semester hours; Physical chemistry—eight semester hours; Chemical literature—one semester hour. Any deficiency in the prerequisites must be satisfied as soon as possible after entering the Graduate School.

Each graduate student, registering for the first time, must take comprehensive written examinations over the fields of inorganic, analytical, organic and physical chemistry. These examinations are given during registration week. The results of these examinations are utilized by the Special Supervisory Committees in arranging the student's study program.

Special departmental instructions should be obtained from the Head of the Department.

Cy. 501.—Organic Preparations. 9 hours laboratory or its equivalent. 3 credits. POLLARD.

Cy. 504.—Inorganic Preparations. Offered only in the first semester. 9 hours laboratory or its equivalent. 3 credits. LEIGH.

Laboratory work involving preparation of typical inorganic compounds in addition to collateral reading and discussion. A reading knowledge of French and German is desirable.

Cy. 505.—Organic Nitrogen Compounds. Offered only in the second semester. 3 hours or its equivalent. 3 credits. POLLARD.

Special lectures and collateral reading relative to the electronic and other theoretical conceptions of organic compounds containing nitrogen. Explosives, pseudo-acids, certain dyes, alkaloids, proteins, etc.

Cy. 506.—Special Chapters in Organic Chemistry. 3 hours. 3 credits. POLLARD.

Lectures and collateral reading. In general, topics to be studied will be chosen from the following list: stereochemistry, tautomerism, acetoacetic ester syntheses, malonic ester syntheses, the Grignard reaction, benzene theories, diazo compounds, and indicators.

Cy. 515.—Advanced Inorganic Chemistry. 3 hours. 3 credits. HEATH.

Discussion of Crystallography, Fire-Assay, the Goniometer, Radioactivity, Atomic Structure, Isotopes, and Isobars. The less common compounds of Phosphorus, Sulfur, Nitrogen and Silicon.

Cy. 516.—Advanced Inorganic Chemistry. Offered only in the first semester. 3 hours or its equivalent. 3 credits. HEATH.

A systematic discussion of the Rarer Elements, considered by Periodic Group relations to each other and to the common elements. Uses of the Rarer Elements and their compounds.

Cy. 517.—Advanced Organic Chemistry. 2 hours lecture and 3 hours laboratory. 3 credits. POLLARD.

Typical reactions which are utilized in the synthesis and proof of structure of organic compounds; quantitative determination of carbon and hydrogen in simple organic compounds and the determination of various characteristic groups.

Cy. 518.—Advanced Organic Chemistry. 1 hour lecture and 6 hours laboratory. 3 credits. POLLARD.

The identification of organic compounds.

Cy. 521.—Advanced Physical Chemistry. 3 hours or its equivalent. 3 credits. HAWKINS. Prerequisites: one year of physical chemistry and differential and integral calculus.

Energetics, Properties of Ideal and Non-Ideal Systems, Electrical Conductance.

Cy. 522.—Advanced Physical Chemistry. 3 hours or its equivalent. 3 credits. HAWKINS. Prerequisites: one year of physical chemistry, differential and integral calculus and either Cy. 521 or a course in chemical thermodynamics.

Modern Theories of Acids and Bases, Homogene- and Heterogeneous Catalysis, Phase Relations.

Cy. 523.—Special Topics in Physical Chemistry. 3 hours or its equivalent. 3 credits. HAWKINS.

The material will be selected from the following: Catalysis; Chemical Thermodynamics; Colloids; Electrochemistry; Phase Rule; Physico-Chemical Calculations; Physico-Chemical Measurements; Solutions; Structure of Matter.

Cy. 524.—Special Topics in Physical Chemistry. 3 hours or its equivalent. 3 credits. HAWKINS.

The subject matter will be selected from material listed under Cy. 523 but not covered during the first term.

Cy. 525.—Chemistry of the Terpenes. 3 hours or its equivalent. 3 credits. HAWKINS.

The monocyclic terpenes and related hydroaromatic compounds.

Cy. 526.—Chemistry of the Terpenes. 3 hours or its equivalent. 3 credits. HAWKINS.

The dicyclic terpenes and their derivatives.

Cy. 533.—Advanced Analytical Chemistry. Offered only in the second semester. 2 hours, and 3 hours laboratory. 3 credits. BLACK.

Applications of physico-chemical principles to analytical chemistry. Electrometric titrations. Colorimetry. Nephelometry.

Cy. 534.—Advanced Sanitary Chemistry. 3 hours. 3 credits. BLACK.

The applications of physico-chemical principles to water and sewage treatment.

Cy. 536.—Advanced Analytical Chemistry. 1 hour and 6 hours laboratory. 3 credits. BLACK.

Selected methods for the detection and determination of a number of elements not covered in elementary courses.

Cy. 538.—Quantitative Organic Chemistry. Offered only in the first semester. 9 hours laboratory or its equivalent. 3 credits. POLLARD.

Cy. 570.—Research in Inorganic Chemistry. 2 to 6 hours credit. HEATH or JACKSON.

Cy. 571.—Research in Analytical Chemistry. 2 to 6 hours credit. BLACK.

Cy. 572.—Research in Organic Chemistry. 2 to 6 hours credit. LEIGH or POLLARD.

Cy. 573.—Research in Physical Chemistry. 2 to 6 hours credit. JACKSON or HAWKINS.

Cy. 574.—Research in Naval Stores. 2 to 6 hours credit. LEIGH or HAWKINS.

Cy. 575.—Research in Sanitary Chemistry. 2 to 6 hours credit. BLACK.

CIVIL ENGINEERING

Cl. 223.—Surveying. Offered each semester. 2 hours, and 3 hours laboratory. 3 credits. STAFF. Prerequisite: CMs. 24; Ml. 182.

The use of chain, level, and transit; balancing of surveys, calculating of areas, contour work, simple curves; elementary practical problems generally included in a short course for students who do not take advanced surveying work.

Cl. 226.—Higher Surveying. 3 hours. 3 credits. GAGER. Prerequisite: Cl. 223.

Traverse, triangulation, precise leveling, topographic mapping; city, land, hydrographic, and aerial surveying; practical astronomy, and map projections.

Cl. 323.—Materials Laboratory. 1 hour, and 4 hours laboratory. 3 credits. KEITH. Corequisite: Ig. 367.

Laboratory work in the testing of stone, brick, asphalt, and other road materials; cement, sand, concrete, timber, steel and other materials used in construction. Tucker, *Laboratory Manual in the Testing of Materials.*

Cl. 326.—Theory of Structures. 2 hours, and 6 hours laboratory. 4 credits. KEITH. Corequisite: Ig. 367.

The resolution of forces, computation of reactions and stresses in statically determinate structures and the design of simple structures.

Cl. 327.—Hydraulics. 3 hours, and 3 hours laboratory. Offered each semester. 4 credits. GAGER. Corequisite: Ig. 367.

The principles underlying the behavior of fluids at rest and in motion. The transportation and measurement of fluids.

Cl. 329.—Higher Surveying. Summer Session only. 12 weeks. 5 credits. STAFF. Prerequisite: Cl. 226.

Field and office practice in traverse, topographic mapping, base line measurement, triangulation, practical astronomy, stream gauging and hydrographic surveying, precise leveling and adjustments of instruments.

Cl. 331.—Railway Engineering. 2 hours, and 3 hours laboratory. 3 credits. STAFF. Prerequisite: Cl. 223.

Simple, compound, reversed, vertical, and spiral curves; earthwork; recitation, field and drawing-room work in the principles of railway engineering. Data is obtained in the field for the design work in both Cl. 331 and Cl. 332. Pickles and Wiley, *Route Surveying.*

Cl. 332.—Highway Engineering. 2 hours, and 3 hours laboratory. 3 credits. STAFF. Prerequisite: Cl. 331.

Recitations, field and drawing-room work covering the location, design, and construction of highways. Bruce, *Highway Design and Construction.*

Cl. 424.—Soil Mechanics. 2 hours, and 3 hours laboratory. 3 credits. KEITH. Prerequisite: Cl. 423.

Theory of soil mechanics, standard tests, current research, classification of soils, properties, bearing values, settlement, foundations.

Cl. 425.—Water and Sewerage. 2 hours, and 3 hours laboratory. 3 credits. GAGER. Prerequisites: Cl. 327, Cy. 215, Bcy. 308, or Bcy. 301, 304.

The principles underlying the collection, treatment and disposal of sewage. The design of collection system and treatment plants. Steel, *Water Supply and Sewerage.*

Cl. 426.—Water and Sewerage. 2 hours, and 3 hours laboratory. 3 credits. GAGER. Prerequisite: Cl. 425.

Lectures and recitations on water supply systems. Sources of supply, methods of treatment, the design of a water supply system, including collection, treatment, and distribution. Steel, *Water Supply and Sewerage.*

***Cl. 431.—Hydrology.** 2 hours. 2 credits. Prerequisite: Senior rating.

The principles of hydrology, their relations and applications to engineering design. Meyer, *Elements of Hydrology.*

Cl. 433.—Theory of Reinforced Concrete. 2 hours, and 3 hours laboratory. 3 credits. KEITH. Prerequisite: Cl. 326.

Theory and design of slabs, beams, girders, columns. Resistance to flexure shear, diagonal tension, bond, compression.

Cl. 434.—Reinforced Concrete Design. 1 hour, and 6 hours laboratory. Offered each semester. 3 credits. KEITH. Prerequisite: Cl. 433.

Stress analysis and design of rectangular frame, buildings, footings, retaining walls, highway bridges.

Cl. 435.—Structural Engineering. 2 hours, and 3 hours laboratory. 3 credits. KEITH. Prerequisite: Cl. 326.

Recitations, lectures, and drawing-room work in the analysis of stresses due to moving loads, design of mill buildings in wood and steel.

Cl. 436.—Structural Engineering. 2 hours, and 3 hours laboratory. Offered each semester. 3 credits. KEITH. Prerequisite: Cl. 435.

Recitations, lectures and drawing-room work in the design of foundations, and bridges.

***Cl. 437.—Estimating Quantities and Costs.** 2 hours. 2 credits. STAFF. Prerequisite: Cl. 326.

Estimating material quantities and costs; valuation, cost keeping, time schedules, and progress charts for engineering work.

***Cl. 438.—Statically Indeterminate Structures.** 3 hours. 3 credits. STAFF. Prerequisite: Cl. 435.

Classical and modern methods of analysis of continuous beams, long span bridges, rectangular frames, space structures.

Cl. 440.—Industrial Hygiene. 3 hours. 3 credits. GAGER. Prerequisite: Ps. 102 and Cy. 102.

Lectures on the causes and effects of industrial processes on the human body and the engineering methods of control. Special emphasis will be placed on the engineer's responsibility for the health of his employees.

Cl. 441.—Sanitary Parasitology. 3 hours. 3 credits. GAGER. Prerequisites: Cl. 327, Cy. 215, and Bcy. 308.

Lectures and laboratory on the causes and effects and engineering control of insect borne diseases, e.g., malaria, yellow fever, typhus plague, etc.

Cl. 442.—Public Health Engineering. 3 hours. 3 credits. GAGER. Prerequisites: Cl. 327, Cy. 215, and Bcy. 308.

Lectures on Public Health Administration, Epidemiology, and Vital Statistics.

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*Not offered in 1945-46.

GRADUATE COURSES

Prerequisites: See the prerequisites for the various courses offered.

Cl. 521.—Advanced Steel Structures. 3 hours or its equivalent. 3 credits. STAFF. The first half of the course Cl. 521-522. Prerequisite: Cl. 435-436 (Structural Engineering).

Cl. 521-522: Advanced work in the theory and design of steel structures, particularly in connection with bridges and buildings.

Cl. 522.—Advanced Steel Structures. 3 hours or its equivalent. 3 credits. STAFF. The second half of the course Cl. 521-522.

Cl. 523.—Advanced Concrete Structures. 3 hours or its equivalent. 3 credits. STAFF. The first half of the course Cl. 523-524. Prerequisites: Cl. 434-435-436 (Concrete Design and Structural Engineering).

Cl. 523-524: Advanced work in the theory and design of concrete structures, particularly in connection with bridges and buildings.

Cl. 524.—Advanced Concrete Structures. 3 hours or its equivalent. 3 credits. STAFF. The second half of the course Cl. 523-524.

Cl. 527.—Advanced Sanitary Engineering. 3 hours or its equivalent. 3 credits. STAFF. The first half of the course Cl. 527-528. Prerequisite: Cl. 425-426 (Water and Sewerage).

Cl. 527-528: A study of the fundamental biological, chemical, and physical principles utilized in water, sewage, and industrial waste treatment processes.

Cl. 528.—Advanced Sanitary Engineering. 3 hours or its equivalent. 3 credits. STAFF. The second half of the course Cl. 527-528.

Cl. 529.—Advanced Sanitary Engineering Design. 3 hours or its equivalent. 3 credits. STAFF. Prerequisite: Cl. 527-528.

Special problems in the design of water, sewage, and industrial waste treatment plants.

Cl. 530.—Sanitary Laboratory Methods. 3 hours or its equivalent. 3 credits. STAFF.

Examination of sewage and industrial wastes. Interpretation of results.

Cl. 533.—Advanced Hydraulic Engineering. 3 hours or its equivalent. 3 credits. STAFF. Prerequisite: Cl. 327 (Hydraulics).

Broader theoretical treatment and amplification of the fundamental principles of hydraulics. Application to problems of hydraulic measurements, flow in pipes and open channels, drainage, erosion, and flood control.

Cl. 534.—Hydraulic Measurements. 3 hours or its equivalent. 3 credits. STAFF. Prerequisite: Cl. 327 (Hydraulics).

Methods of testing hydraulic machinery and calibrating hydraulic measuring equipment.

DAIRYING

Ps. 226 is required of students majoring in Dairy Manufactures.

Dy. 311.—Principles of Dairying. 3 hours and 2 hours laboratory. 4 credits. FOUTS and ARNOLD.

Composition and properties of milk; sanitary milk production; common methods of analyzing milk; common dairy processes; farm methods of handling milk; dairy breeds, selection, breeding and raising of dairy cattle.

Dy. 316.—Condensed Milk and Dry Milk. Offered only in the first semester. 2 hours, and 3 hours laboratory. 3 credits. FOUTS. Prerequisites: Acy. 203, Dy. 311.

Principles and operations involved in the manufacture of condensed milk and dry milk.

Dy. 318.—Grading and Judging Dairy Products. 4 hours laboratory. 2 credits. FOUTS. Prerequisite: Dy. 311.

Market grades and classes of dairy products; the use of score cards in grading and judging dairy products.

Dy. 412.—Milk Production. 2 hours, and 2 hours laboratory. 3 credits. ARNOLD. Prerequisites: Al. 311, Dy. 311.

Feeding and management of dairy cattle for milk production.

Dy. 413.—Market Milk and Milk Plant Products. 3 hours, and 3 hours laboratory. 4 credits. FOUTS. Prerequisite: Dy. 311.

Sanitary supervision of the milk supply; methods of handling and processing milk and milk plant products in the commercial dairy; technical operation of milk plants.

***Dy. 414.—Manufacture of Butter and Cheese.** 2 hours, and 3 hours laboratory. 3 credits. FOUTS. Prerequisite: Dy. 311.

Principles and practices of butter and cheese manufacture.

***Dy. 415.—Ice Cream Manufacture.** 2 hours, and 3 hours laboratory. 3 credits. FOUTS. Prerequisite: Dy. 311.

The ice cream mix; flavoring and freezing ice cream; ice cream plant operation.

Dy. 416.—Dairy Technology. 2 hours, and 6 hours laboratory. 5 credits. FOUTS. Prerequisites: Dy. 311, Bcy. 301, Acy. 125-126.

Advanced laboratory methods and their application in chemical and bacteriological control of milk and milk products.

Dy. 418.—Approved Dairy Practice. 1 to 3 credits. FOUTS.

Practical experience in approved dairy plants during the summer preceding, or following, the junior year. Satisfactory work and a written report are the basis of credit allowed.

Dy. 420.—Problems in Dairy Technology. Offered each semester. 1 to 4 credits. FOUTS. Prerequisite: Permission of instructor.

Qualified students may choose an approved problem covering some phase of dairy technology. Scope of work determines credit allowed.

GRADUATE COURSES

Dy. 520.—Advanced Dairy Technology. 1 hour, and 6 hours laboratory. 3 credits. FOUTS.

Advanced laboratory methods and their application in chemical and bacteriological control of milk and milk products; also assigned references.

Dy. 521.—Problems in Milk and Milk Products. 1 to 4 credits. FOUTS.

Dy. 523.—Problems in Dairy Production. 1 to 4 credits. BECKER.

ECONOMICS AND BUSINESS ADMINISTRATION

Courses preceded by Es. are courses in Economics and courses preceded by Bs. are courses in Business Administration.

(The following courses are designed for students in the General College. May be taken for credit by Upper Division students registered in colleges other than Business Administration.)

Es. 203.—Elementary Statistics. Offered each semester. 3 hours, and 2 hours laboratory. 4 credits. ANDERSON. (Formerly CEs. 15.)

The statistical method as a tool for examining and interpreting data; acquaintance with such fundamental techniques as find application in business, economics, biology, agriculture, psychology, sociology, etc.; basic preparation for more extensive work in the field of statistics. Prerequisite for advanced standing in Economics and Business Administration.

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*Not offered in 1945-46.

Es. 205-206.—Economic Foundations of Modern Life. 6 hours. 6 credits. ELDRIDGE, EUTSLER, WEBB, JOUBERT and DIETZ. (Formerly CEs. 13 or 131-132.)

This is an introductory course in economics designed primarily to meet the requirements of all University students who feel the need for a workable knowledge of the economic system. Emphasis is placed on analyses and descriptions of the more important economic organizations and institutions which, in their functional capacities, constitute the economic order. Economic principles and processes are explained, especially those relating to an understanding of value, price, cost, rent, interest, wages, profit, money, banking, commerce, foreign exchange, foreign trade and business cycles. The first term, which is devoted largely to the study of economic organizations and institutions and to the principles governing value and price, may be taken separately for which 3 semester hours of credit are given.

Es. 208.—Economic History of the United States. 3 hours. 3 credits. MATHERLY.

The industrial development of America, the exploitation of natural resources; the history of manufacturing, banking, trade, transportation, etc.; the evolution of industrial centers; the historical factors contributing to the growth of the United States.

Es. 209.—Economic History of England. 3 hours. 3 credits. CHACE.

A survey of economic history; the evolution of capalistic economy in England; the origin and development of the wage system; the Industrial Revolution; the growth of British trade; the relation of economic development to political policy; and the effect of England's industrial progress on the United States.

Bs. 211.—Elementary Accounting. Offered each semester. 3 hours. 3 credits. BEIGHTS. The first half of the course Bs. 211-212. (Foremrly CBs. 141.)

Bs. 211-212: Designed to provide the basic training in business practice and in accounting. A study of business papers and records; recording transactions; preparation of financial statements and reports. Prerequisite for advanced standing in Economics and Business Administration.

Bs. 212.—Elementary Accounting. Offered each semester. 3 hours. 3 credits. BEIGHTS. Second half of the the course Bs. 211-212. (Formerly CBs. 142.)

Bs. 221.—Elementary Business Finance. 3 hours. 3 credits. DOLBEARE.

Financing of small businesses. Personal finance companies. Building and loan associations. Individual finance; financing the purchase of a home; saving institutions.

Bs. 232.—Merchandising Organization and Practice. 3 hours. 3 credits. HESKIN.

Kinds of merchandising organization. Wholesaling and retailing. Store operation. Merchandising practices and procedures. Selling and sales management. Elements of salesmanship.

Bs. 241.—Business Organization and Practice. 3 hours. 3 credits. CHACE.

Types of business enterprise; individual proprietorships, partnerships and corporations. Methods of organization, finance and operation. Business practices and procedures.

Es. 246.—The Consumption of Wealth. 3 hours. 3 credits. MATHERLY.

An economic analysis of the problems involved in determining the extent and trends of consumer demand and in the adjustments of productive processes to that demand.

Es. 282.—Utilization of Natural Resources. 3 hours. 3 credits. DIETTRICH.

A comprehensive review of the natural and human resources of the United States followed by an intensive study of the wise and wasteful practices of exploitation and utilization of these resources. A study of the human and economic significance of the principles of conservation with special reference to Florida.

(The following courses are designed for Upper Division students, primarily those in the College of Business Administration and those majoring in Economics in the College of Arts and Sciences.)

Bs. 310.—Accounting Mathematics and Machines. 3 hours. 3 credits. BEIGHTS. Prerequisite: CBs. 142 or equivalent.

Designed to provide the minimum understanding and skill required in the mathematical processes needed by students in business and in accounting. A study of mathematical processes in their

application to specific problems involving receivables, inventories, depreciation methods, investments, annuities, sinking funds, bond valuation, foreign exchange and other problems.

Bs. 311.—Accounting Principles. 3 hours. 3 credits. BEIGHTS. Prerequisite: CBs. 141-142 or its equivalent.

A study of the mechanical and statistical aspects of accounting; books of record; accounts; fiscal period and adjustments; working papers; form and preparation of financial statements; followed by an intensive and critical study of the problems of valuation as they affect the preparation of the balance sheet and income statements.

Bs. 312.—Accounting Principles. 3 hours. 3 credits. BEIGHTS. Prerequisite: Bs. 311.

Consideration is given to the legal aspects of accounting and related problems resulting from the legal organization form used by businesses: liabilities; proprietorship; partnerships; corporations; capital stock; surplus; followed by a study of the financial aspects of accounting as disclosed by an analysis and interpretation of financial statements: financial ratios and standards, their preparation, meaning, and use.

Bs. 313.—Cost Accounting. Offered each semester. 3 hours. 3 credits. BEIGHTS. Prerequisite: Bs. 311.

A study of the methods of collection, classification, and interpretation of cost data; special problems, standard costs, cost systems, uses of cost data in business control. Lectures and problems.

Bs. 314.—Federal Income Taxes for Individuals. 3 hours. 3 credits. BEIGHTS. No prerequisite.

A study of the Internal Revenue Code, Regulations and Cases which apply to the determination and taxation of incomes of individuals. Limited in scope to fundamentals of the law and its application to fairly simple situations. Consideration given to incomes, deductions, withholding, rates, returns, declaratons and filing. Designed for the general University student.

Es. 321.—Financial Organization of Society. Offered each semester. 3 hours. 3 credits. DOLBEARE, TUTTLE. The first half of the course Es. 321-322. Prerequisite: CEs. 13.

Es. 321-322: An introduction to the field of finance: a study of the institutions providing monetary, banking and other financial services; interrelationships and interdependence of financial institutions; central banking; government control of finance; significance of financial organization to the economic system as a whole.

Es. 322.—Financial Organization of Society. Offered each semester. 3 hours. 3 credits. DOLBEARE, TUTTLE. The second half of the course Es. 321-322.

Es. 327.—Public Finance. Offered each semester. 3 hours. 3 credits. BIGHAM. Prerequisite: CEs. 13.

Principles governing expenditures of modern government; sources of revenue; public credit; principles and methods of taxation and of financial administration as revealed in the fiscal systems of leading countries.

Es. 335.—Economics of Marketing. Offered each semester. 3 hours. 3 credits. HESKIN. Prerequisite: CEs. 13.

The nature of exchange and the economic principles underlying trade, with particular attention given to interregional trade. The significance of comparative costs, comparative advantages, and comparative disadvantages. The institutions and methods developed by society for carrying on trade operations; retail and wholesale agencies; elements of marketing efficiency; the cost of marketing; price maintenance; unfair competition; the relation of the government to marketing.

Es. 351.—Elements of Transportation. Offered each semester. 3 hours. 3 credits. BIGHAM. Prerequisite: CEs. 13.

Significance, history, facilities, geography, economic characteristics, elementary rate making, and development of regulation of all important forms of intercity transportation.

Es. 352.—Principles and Problems of Transportation. Offered only in the first semester. 3 hours. 3 credits. BIGHAM. Prerequisite: Es. 351.

A continuation of Es. 351 with special reference to problems such as valuation, fair return, rate structures, discrimination, control of service, finance, consolidation, labor relations, public ownership, and coordination.

Bs. 361.—Property Insurance. 3 hours. 3 credits. CHACE.
Fire and Marine insurance.

Bs. 362.—Property Insurance. 3 hours. 3 credits. CHACE.
Bond, title, and casualty insurance.

Es. 372.—Labor Economics. Offered only in the first semester. 3 hours. 3 credits. CHACE. Prerequisite: CEs. 13.

Labor problems: insecurity, wages and income, hours, sub-standard workers, industrial conflict; attempts to solve labor problems by employees; unionism in its structural and functional aspects; attempts to solve labor problems by employers: personnel management, employee representation, employers' associations; attempts to solve labor problems by state: protective labor legislation, laws relating to settlement of industrial disputes.

Bs. 373.—Personnel Management. Offered only in the second semester. 3 hours. 3 credits. CHACE.

A comparison of and critical evaluation of public and private personnel practices and techniques of recruiting, selecting, transferring, promoting, classifying and training workers. Attention is centered on the problem of training to fit workers for the different types and levels of duties called for by government, by industry and by other types of business enterprises. Consideration of organization, policies, and procedures of managing men.

***Es. 381.—Economic Geography of North America.** 3 hours. 3 credits. DIETTRICH.

A geographical survey of the continent of North America with special reference to the natural conditions of the United States; involving the analysis of the major regions of the United States from the standpoint of their relation to their natural environment.

Es. 385.—Economic Geography of South America. 3 hours. 3 credits. DIETTRICH.

A geographical survey of the continent of South America, organized around the growth of trade, exports and imports, trade by countries, and general business trends; the economic conditions that influence commercial advance or decline; the major geographic regions; their importance in supplying export products and in consuming import commodities.

Bs. 401.—Business Law. Offered each semester. 3 hours. 3 credits. The first half of the course Bs. 401-402.

Bs. 401-402: Contracts and agency; rights and obligations of the agent, principal, and third party; termination of the relationship of agency. Conveyances and mortgages of real property; sales and mortgages of personal property; the law of negotiable instruments.

Bs. 402.—Business Law. Offered each semester. 3 hours. 3 credits. The second half of the course Bs. 401-402.

Bs. 403.—Law in Relation to the Form of the Business Unit. Offered each semester. 3 hours. 3 credits.

Partnership: nature, internal and external relationship, property rights of partner, dissolution and winding up. Corporations: Corporate charter and structure, stock and stockholders, directors and officers and power of corporation.

Es. 404.—Government Control of Business. 3 hours. 3 credits. HESKIN. Prerequisite: CEs. 13.

A study of the evolution of economic control; an examination of the effectiveness of *laissez faire* control in the American economy; legality of and chief methods of effectuating governmental control; the development of the relationship between government and non-public utility monopolies; Federal Trade Commission control of competitive practices; a critical appraisal of recent developments in the field of government control.

Es. 407.—Economic Principles and Problems. Offered each semester. 3 hours. 3 credits. ELDRIDGE. The first half of the course Es. 407-408. Prerequisite: CEs. 13.

Es. 407-408: An advanced course in economic theory with special emphasis on the causes of economic maladjustments arising from the operation of economic forces.

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*Not offered in 1945-46.

Es. 408.—Economic Principles and Problems. Offered each semester. 3 hours. 3 credits. ELDRIDGE. The second half of the course Es. 407-408.

Bs. 411.—Advanced Accounting. Problems. 3 hours. 3 credits. BEIGHTS. Prerequisite: Bs. 312.

A study of specialized accounting problems; mathematics of accounting; statement of affairs; consignments; installments; ventures; insurance; and other related subjects.

Bs. 412.—Auditing. 3 hours. 3 credits. BEIGHTS. Prerequisite: Bs. 312.

A study of auditing theory and current auditing practice; principal kinds of audits and services of the public accountant; professional and ethical aspects of auditing. Lectures, discussions, and problems.

Bs. 413.—Advanced Accounting. Systems. 3 hours. 3 credits. BEIGHTS. Prerequisite: Bs. 312.

Consideration is given to the principles underlying the structure of accounting systems. A detailed analytical study of six or more systems is made. Reports on systems in operation for various industries are made.

Bs. 414.—Income Tax Procedure. 3 hours. 3 credits. BEIGHTS. Prerequisite: Bs. 311.

A study of the Federal Income Tax Law and Regulations, and related accounting problems; preparation of tax returns for individuals, corporations and fiduciaries.

Bs. 417.—Governmental Accounting. 3 hours. 3 credits. BEIGHTS. Prerequisite: Bs. 312.

A study of the basic principles underlying fund accounting. Detailed consideration is given to the preparation and use of the budget, system of accounts, special vouchers, records, statements.

Bs. 418.—Advanced Accounting. C.P.A. Problems. 3 hours. 3 credits. BEIGHTS. Prerequisite: Bs. 312.

A continuation of the study of specialized accounting problems; receiverships; foreign exchange; stock brokerage; estates and trusts; budgets; business taxes; consolidations and mergers; and other problems usually covered in C.P.A. examinations.

Bs. 422.—Investments. Offered only in the first semester. 3 hours. 3 credits. DIETZ. Prerequisite: Es. 321-322.

The nature of investments; investment policies and types of securities; analysis of securities; the mechanics and mathematics of security purchases; factors influencing general movements of security prices.

Bs. 424.—Investment Analysis. 3 hours. 3 credits. DIETZ. Prerequisite: Bs. 422.

A study of the standards employed in the analysis of public utility, railroad, and general corporate securities; the supervision of individual, bank, and insurance company security investments; present day factors influencing security values.

Es. 425.—Banking Principles and Practices. 3 hours. 3 credits. DOLBEARE. Prerequisite: Es. 321-322.

A study of banking functions, principles and practices—what they are, what they have been, and what they may become, from the viewpoint of serving the public welfare. Analysis of such subjects as: branch and group banking; 100% reserves; deposit insurance; the sphere of Government banking; the proper scope of Federal Reserve powers; changing principles or changing practices, etc.

Bs. 427.—Principles and Problems of Corporation Finance. 3 hours. 3 credits. DOLBEARE.

Lectures, discussions, and problems. A study of the economic and legal forms of business enterprise; the instruments of business finance; financial problems as they relate to the ordinary operations of the business involving working capital, income, dividend policy, current borrowing, credit extension, and the business cycle.

Bs. 428.—Principles and Problems of Corporation Finance. 3 hours. 3 credits. DOLBEARE. Prerequisite: Bs. 427. A continuation of Bs. 427.

The sale of corporation securities; problems incident to growth and expansion; business failures and financial reconstruction; social aspects of corporate financial policy, regulation and control of corporate fiscal policy and taxation of corporations.

Bs. 433.—Advertising. 3 hours. 3 credits. HESKIN.

The relation of the principles of advertising to economic theory; psychology of advertising; a study of agencies, media and methods.

Bs. 438.—Problems in Sales and Market Analysis. 3 hours. 3 credits. HESKIN. Prerequisite: Es. 335.

Methods used in analyzing the selling, advertising, and merchandising problems of manufacturers, wholesalers, and retailers; the use of market research; the objective of market investigations; planning market investigations; sales survey methods; preparation of reports; quantitative analysis; measurement of market conditions and their effects on sales; market trends.

***Bs. 440.—Trade Horizons in Caribbean America.** 3 hours. 3 credits. DIETTRICH.

A regional trade course covering the West Indies, Mexico, Central America, Colombia, and Venezuela. The commercial importance of each republic and island as a market for American goods and as a source of raw materials and foodstuffs; Florida's commercial position in such trade as a result of its geographical proximity to this area.

***Bs. 443.—Foreign Trade.** 3 hours. 3 credits. DIETTRICH.

Problems in foreign trade: promotion of overseas trade; foreign trade surveys; products of international commerce; trade barriers, tariffs, customs; foreign commercial policies; exporting systems and methods; financing of foreign trade; problems of shipment; legal aspects of foreign trade; importing problems; foreign trade of Florida.

***Bs. 444.—Ocean Transportation.** 3 hours. 3 credits. BIGHAM.

Problems in ocean transportation: types of ocean carriers; ocean routes; ocean ports; services of ocean freight carriers; ship brokerage and freight brokerage; passenger carriers; steamship combinations and conferences; ocean freight rate-making; vessel and cargo documents; regulation of shipping; government aid to ship-building and operation; shipping of Florida ports.

Es. 454.—Principles of Public Utility Economics. Offered only in the first semester. 3 hours. 3 credits. BIGHAM. Prerequisite: CEs. 13.

The nature, place and development of public service corporations; types of public control; valuation and rate making; regulation of service, accounts, reports, and securities; combinations; public relations; public ownership.

Es. 456.—Problems in Public Service Industries. 3 hours. 3 credits. BIGHAM.

An intensive study of the more important problems raised in the introductory course in public utilities.

Bs. 461.—Life Insurance. Offered only in the second semester. 3 hours. 3 credits. TUTTLE.

The functions and nature of life insurance; the economic characteristics of life insurance; the fundamentals of the science of life insurance; practices and policies of insurance companies; types of insurance companies.

Es. 463.—Problems in Social Security. 3 hours. 3 credits. EUTSLER.

An analysis of the meaning and nature of social security, especially as related to economic security; the distinctions between social and private insurance; the hazards of low income groups; an evaluation of projects and methods for eliminating, reducing, or indemnifying these hazards; the problems of social security in the United States, especially concerning experiences with relief measures, the development of legislation, the problems of financing and administering security programs, and the relationship between economic planning and security.

Bs. 465.—Realty Principles. 3 hours. 3 credits.

Fundamentals of realty economics.

Bs. 466.—Realty Management. 3 hours. 3 credits.

The organization of realty enterprises; management of real property; handling of rentals; administration of real estate development.

Es. 468.—Economic History in the Making. 3 hours. 3 credits. DIETTRICH.
The era of industrialism; contemporary economic organization; types of economic reform; special consideration of current social and economic problems in England, France, Germany, Soviet Russia, and the United States.

Es. 469.—Business Forecasting. 3 hours. 3 credits. ANDERSON. Prerequisite: CEs. 15.
A survey of the problem of the reduction of business risk by forecasting general business conditions; statistical methods used by leading commercial agencies in forecasting.

Es. 470.—Business Forecasting. 3 hours. 3 credits. ANDERSON. Prerequisite: CEs. 15.
The application of statistical technique and economic principles to specific problems of business forecasting. Seasonal variation, trend lines, and multiple correlation analysis. Methods of forecasting the stock market and the price of important commodities.

***Es. 477.—Problems in Federal Finance.** 3 hours. 3 credits. DONOVAN. Prerequisite: Es. 327.
Economic effects of public expenditure; war finance; personal income and estate taxes; corporate income and profits taxes; excise taxes; debt problems.

***Es. 478.—Problems in State and Local Finance.** 3 hours. 3 credits. DONOVAN. Prerequisite: Es. 327.
Allocation of functional responsibility; property taxation; sales taxes; highway finance, business taxation; supervision of local finance. Emphasis on Florida problems.

Es. 485.—International Economic Relations. 3 hours. 3 credits. DIETTRICH.
A study of the development of international economic policies; geographic, economic, social, and political factors underlying contemporary international problems; economic and political methods employed by the leading commercial nations to expand their economic interests.

Es. 486.—Economic Geography of Asia. 3 hours. 3 credits. DIETTRICH.
A study of human relationships to natural environment as presented in the economic adjustments in Asia, Australia and New Zealand and their relations with the Western World; the major geographic regions in the area, their economic significance in production of various raw materials, foodstuffs, and manufactured goods.

Es. 487.—Economic Geography of Europe. 3 hours. 3 credits. DIETTRICH.
A study of human relationships to natural environment as presented in the economic adjustments in Europe and in its commercial connections with the other continents, especially with North America.

GRADUATE COURSES

Prerequisites: See the prerequisites for the various courses offered.

Es. 501.—Seminar in Economic Principles and Problems. 3 hours. 3 credits. STAFF. Prerequisite: Es. 407-408 (Economic Principles and Problems), or equivalent.

Es. 502.—Seminar in Economic Principles and Problems. 3 hours. 3 credits. STAFF. Prerequisite: Es. 501.

Es. 505.—The Development of Economic Thought. 3 hours. 3 credits. ELDRIDGE. The first half of the course Es. 505-506. Prerequisite: Es. 407-408 (Economic Principles and Problems), or equivalent.
Development of economic thought; analysis of theories of various schools of economic thought; a study of the Physiocrats, Mercantilism, the Classical Economists; the leading economists of the Austrian School, and a brief survey of the beginning of Socialism; the development of theoretical background for research and graduate work of an advanced nature. Required of all candidates for the master's degree in this department.

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*Not offered in 1945-46.

Es. 506.—The Development of Economic Thought. 3 hours. 3 credits. ELDRIDGE. The second half of the course Es. 505-506. Prerequisite: Es. 505 or equivalent.

Analysis of the thought of the followers and defenders on the one hand and of the abler critics on the other hand of the Classical Economists: appraisals of recent contributions of the various schools in formulating a system of economic analysis. Required of all candidates for the master's degree in this department.

Es. 509.—The Development of Economic Institutions. 3 hours. 3 credits. TUTTLE. Prerequisite: Es. 467 (Economic History), or equivalent.

An intensive study of the development of the fundamental institutions of the existing economic order, including the price system—money, credit, and banking; business enterprise—types of industrial organization, industrial combination, the business cycle; machine technique—the machine and its effects, mining, agriculture, manufacturing and transportation.

Bs. 511.—Accounting Theory. 3 hours. 3 credits. BEIGHTS. The first half of the course Bs. 511-512. Prerequisite: Permission of instructor.

Bs. 511-512 is a critical analysis and study of existing practices and principles of accounting in the fields of general accounting, auditing, and cost accounting. Consideration will be given to the mathematical and statistical aspects of accounting; theories of valuation, cost, and income determination; legal aspects of accounting emphasizing surplus and capital stock problems; and methods of statement analyses and their uses and limitations.

Bs. 512.—Accounting Theory. 3 hours. 3 credits. BEIGHTS. The second half of the course Bs. 511-512. Prerequisite: Bs. 511.

Bs. 513.—Seminar in Accounting Principles and Problems. 3 hours. 3 credits. BEIGHTS. The first half of the course Bs. 513-514. Prerequisite: Permission of instructor.

Bs. 513-514 is designed for those students who desire to continue their advanced work in the following fields: auditing; state and federal taxation; cost accounting; and governmental accounting.

Bs. 514.—Seminar in Accounting Principles and Problems. 3 hours. 3 credits. BEIGHTS. The second half of the course Bs. 513-514. Prerequisite: Bs. 513.

Es. 524.—Corporation Finance and Investments. 3 hours. 3 credits. MCFERRIN. Prerequisite: Es. 321-322 (Financial Organization of Society), or equivalent.

A study and analysis of the corporation as an institution making use of society's savings; the processes, practices and problems; the social responsibilities of the corporation; the nature of the capital market and the practices, and institutions involved in the acquisition of capital funds, with an evaluation of corporation sources of capital funds; factors influencing the accumulation and distribution of capital funds; and the international flow of capital.

Es. 528.—Problems in Money and Banking. 3 hours. 3 credits. DOLBEARE. Prerequisite: Es. 321-322 (Financial Organization of Society), or equivalent.

Critical analysis of monetary standards and central banking control of credit, especially as they are related to price and business fluctuations.

Es. 530.—Problems in Taxation. 3 hours. 3 credits. DONOVAN. Prerequisite: Es. 327 (Public Finance), or equivalent.

An intensive study of the problems of taxation primarily related to the following taxes: general property, incomes, business, inheritance, and commodity.

Es. 531.—Economic Functions of Middlemen. 3 hours. 3 credits. HESKIN. Prerequisite: Es. 335 (Economics of Marketing), or equivalent.

The significance of middlemen and of the functions performed by them in the economic organization of society will be covered, with chief emphasis upon the social viewpoint. Attention will be given to some of the social problems arising to the consumer, and to the role played by middlemen in the functional distribution of income.

Es. 556.—Problems in Public Service Industries. 3 hours. 3 credits. BIGHAM Prerequisite: Es. 351 (Transportation Principles), or equivalent.

An intensive study of the more important problems raised in the introductory courses in transportation and public utilities.

Es. 565.—Problems in Social Security. 3 hours. 3 credits. EUTSLER. Prerequisite: Es. 407-408 (Economic Principles and Problems), or equivalent.

An analysis of the meaning and nature of social security, especially as related to economic security; the distinctions between social and private insurance; the hazards of low income groups; an evaluation of projects and methods for eliminating, reducing, or indemnifying these hazards; the problems of social security in the United States, especially concerning experiences with relief measures, the development of legislation, the problems of financing and administering security programs, and the relationship between economic planning and security.

Es. 569.—Problems in Statistics and Business Forecasting. 3 hours. 3 credits. ANDERSON. The first half of the course Es. 569-570. Prerequisite: Es. 469-470 (Business Forecasting), or equivalent.

Es. 569-570 is a critical study of special problems in statistics and business forecasting.

Es. 570.—Problems in Statistics and Business Forecasting. 3 hours. 3 credits. ANDERSON. The second half of the course Es. 569-570. Prerequisite: Es. 569.

Es. 572.—Problems in Labor Relations. 3 hours. 3 credits. BAUGHMAN. Prerequisite: Es. 372 (Labor Economics), or equivalent.

Insecurity, wages and income, sub-standard workers, the strike, graft vs. industrial unionism; labor and government, wage legislations, hours legislation, protective legislation.

Es. 585.—International Economic Relations. 3 hours. 3 credits. Prerequisite: Es. 407-408 (Economic Principles and Problems), or equivalent.

An historical study of the development of international economic policies; geographic, economic, social, and political factors underlying contemporary international problems; economic and political methods employed by the leading commercial nations to expand their economic interests.

Es. 589.—Problems in Economic Geography. 3 hours. 3 credits. DIETTRICH. Prerequisite: Es. 381 (Economic Geography of North America), or equivalent; Es. 385 (Economic Geography of South America), or equivalent.

A lecture and research course analyzing the geographic and economic factors affecting the industrial and commercial development of the leading countries of the world. Students will be required to make intensive individual studies of selected subjects.

EDUCATION

En. 2141.—Introduction to Education. Offered each semester. 3 hours. 3 credits. SIMMONS. (Formerly CEn. 13.)

An attempt is made to foreshadow the field of Education so that the student may see the whole field before he studies its detailed and technical parts.

En. 303.—Methods in Vocational Agriculture. Offered only in the second semester. 3 credits. GARRIS.

General methods of teaching high school subjects applied to vocational agriculture. Garris, *Special Methods in Teaching Vocational Agriculture.*

En. 305.—Development and Organization of Education. 3 hours. 3 credits. NORMAN.

An attempt to interpret and evaluate the role of the public school in our rapidly changing society.

En. 306.—Vocational Education. Offered only in the first semester. 3 hours. 3 credits. GARRIS.

Development, function, and scope of vocational, agricultural, home economics, trade and industrial, and commercial education as provided for by the National Vocational Education Act of Congress.

En. 317.—Measurement and Evaluation of School Practices. 3 hours. 3 credits. CRAGO.

A study of the basic principles and methods of measurement and evaluation of school practices.

En. 385.—Child Development. 3 hours. 3 credits. CUMBEE.

Designed to acquaint the student with the growth and development of children into mature personalities. The findings of recent research will be studied through outside reading, class discussion and observation. Methods of evaluation of child growth will be included.

En. 386.—Educational Psychology. 3 hours. 3 credits. CUMBEE.

En. 397.—Secondary School Curriculum and Instruction. 3 hours. 3 credits. WILLIAMS, W. R. The first half of the course En. 397-398.

En. 397-398: The curriculum and instruction. The study of a group of children, planning a program for the group, and setting up a system of evaluation.

En. 398.—Secondary School Curriculum and Instruction. 3 hours. 3 credits. WILLIAMS, W. R. The second half of the course En. 397-398.

En. 401.—School Administration. 3 hours. 3 credits. SIMMONS.

Problems peculiar to schools in Florida; the supervising principal, qualifications, relation to superintendent, boards, teachers, pupils, patrons, and community; adapting the school to the child's needs; business practices.

En. 402.—Administration Practice. 3 hours. 3 credits. SIMMONS. Prerequisite: En. 401.

The supervision of instruction; visits to schools for the study of administrative and supervising practice; a survey of one school system.

En. 403.—Principles and Philosophy of Education. 3 hours. 3 credits. NORMAN.

An examination of the various theories and philosophies of education; their relationships to education in a democracy.

En. 406.—Administration of the Elementary School. 3 hours. 3 credits. SIMMONS. Prerequisites: En. 305 and the required junior courses.

The problems that usually confront the elementary school principal will be stressed in this course. Reavis, Pierce and Stulken, *The Elementary School.*

En. 408.—High School Administration. 3 hours. 3 credits. SIMMONS.

Practical management and administration of the modern high school.

En. 409.—Supervised Teaching in Vocational Agriculture. Offered each semester. 9 hours laboratory. 3 credits. GARRIS.

For part-time and evening classes in vocational agriculture. Under supervision, students will assist in organizing and teaching part-time and evening students in the Gainesville area.

En. 410.—Supervised Teaching in Vocational Agriculture. Offered each semester. 9 hours laboratory. 3 credits. GARRIS.

For all-day classes in vocational agriculture. Under supervision, students will observe and teach all-day classes in vocational agriculture in the P. K. Yonge Laboratory School or in other schools located in the Gainesville area.

En. 411.—Special Methods in Vocational Agriculture. Offered each semester. 2 hours. 2 credits. GARRIS.

Teaching part-time and evening classes in vocational agriculture. Organization, course content, and methods of teaching applied to adult classes for vocational agriculture. Garris, *Special Methods in Teaching Vocational Agriculture.*

En. 412.—Special Methods in Vocational Agriculture. Offered each semester. 2 hours. 2 credits. GARRIS.

Teaching all-day classes in vocational agriculture. Organization of a long-time teaching program, methods in Future Farmer work, and class management for high school classes in vocational agriculture. Garris, *Special Methods in Teaching Vocational Agriculture.*

En. 421.—Student Teaching. ..6 or more hours of teaching. 3 credits. MEAD and STAFF. The first half of the course En. 421-422. Prerequisite: En. 397 or 398.

En. 421-422: The student is given practice in the art of teaching by actually taking over responsibility for the teaching-learning situation and putting into operation under direction and supervision the theories, methods, materials, and teaching techniques acquired during his junior year through observation and participation.

En. 422.—Student Teaching. 6 or more hours of teaching. 3 credits. MEAD and STAFF. The second half of the course En. 421-422.

En. 462.—Guidance and Counseling. 3 credits. CRAGO.

A general survey of the field of guidance and student personnel work in Elementary and Secondary Education. Some consideration to the concept of education as guidance and the application of this concept to other phases of the school program. Major attention is devoted to methods of dealing with the human factor in the educative process. The student is expected to become familiar with the tools, agencies, and common practices in the field of counseling and guidance. Attention will be given to a study of the various methods of organizing and administering a comprehensive student personnel program designed to reach all students in a systematic and effective way.

En. 472.—Methods and Organization in Industrial Arts. 3 hours. 3 credits. STRICKLAND.

Organization of industrial arts materials for the various grades and schools; planning courses of study, selecting equipment and supplies; study of aims and objectives of industrial arts. A study of the utilization of current acceptable teaching techniques and devices.

GRADUATE COURSES

(For courses offered only in summer terms the student should consult the *Bulletin of the Summer Session.*)

Prerequisite: A student who expects to pursue graduate work in Education should present a Bachelor's degree with a minor in Education or the equivalent. The equivalent must be approved by the Department of Education upon recommendation of the student's Supervisory Committee. (See *Admission to Candidacy*, page 114.)

Students majoring in Education other than school administration and provided they have an undergraduate degree in Education, will normally be required to complete a major of twelve hours in Education and a minor or minors of 12 hours in another field or fields.

Students majoring in school administration or persons who hold a bachelor's degree without a major in Education will be required to complete a major of eighteen semester hours in Education.

Suggested Courses for Majors

School Administration:	*Educational Psychology:*	*Instruction:*
En. 501-502	En. 503	En. 503 or En. 507
En. 503 or En. 517	En. 507	En. 508 or En. 510
En. 508 or En. 510	En. 508 or En. 510	En. 516 or En. 562
En. 518 or En. 597	En. 516	En. 524 or En. 525
En. 519-520	En. 517	
En. 521	En. 539	
En. 528 or En. 536	En. 562	
En. 544		
En. 562		

En. 501.—Elementary School Curriculum. 3 hours. 3 credits. STEVENS, GRACE A.

Intensive study of the development and present content of the elementary school curriculum, including the kindergarten; selection and evaluation of material.

En. 502.—Elementary School Curriculum. 3 hours. 3 credits. STEVENS, GRACE A.

A study of a certain group of elementary children; how to develop and organize materials to meet the needs of the particular group concerned; how to evaluate.

En. 503.—Measurement and Evaluation. 3 hours. 3 credits. CRAGO.

Students will be guided in the investigation of problems involving measurement, evaluation of school procedures and diagnostic and remedial practices. Problems directly related to the needs of students enrolled will be studied.

En. 507.—Educational Psychology. 3 hours. 3 credits. CRAGO.

A review of the trends in the applications of psychology to problems of education will be made. Problems directly related to the needs of students enrolled will be studied.

En. 508.—Democracy and Education. 3 hours. 3 credits. NORMAN.

The nature of experience, the nature of institutions, the social inheritance, the individual, society, socialization, social control, dynamic and static societies, education its own end.

En. 509.—Foundations of School Administration. 3 hours. 3 credits. SIMMONS.

Problems selected to meet individual needs; each student selects some problem for special study and presents the results of his study in the form of a thesis.

En. 510.—History of Education. 3 hours. 3 credits. NORMAN.

An attempt to evaluate present-day education by tracing its dominant factors—teacher, student, curriculum, and educational plant, control and support—back to their beginning; and to point out present tendencies and possible developments.

En. 511.—Teaching Vocational Agriculture. 3 hours. 3 credits. GARRIS.

Methods and Materials: Selection and organization of subject matter from the vocational point of view. Offered when demand arises and during the summer session.

En. 512.—Teaching Vocational Agriculture. 3 hours. 3 credits. GARRIS.

A continuation of Education 511.

En. 516.—Character and Personality Development. 3 hours. 3 credits. CRAGO.

A study of methods used in development of character and personality, together with an evaluation of them for use in public schools.

En. 517.—Educational Statistics. 3 hours. 3 credits. SIMMONS.

To acquaint students with statistical methods as applied to Education. It is recommended that this course be taken before En. 503.

En. 518.—High School Administration. 3 hours. 3 credits. SIMMONS.

This course will consist of an intensive study of specific problems in organizing and administering the modern high school. Special reference will be made to Florida.

En. 519.—High School Curriculum. 3 hours. 3 credits. LEWIS, HAL G.

This is a course dealing with high school curriculum problems.

En. 520.—High School Curriculum. 3 hours. 3 credits. LEWIS, HAL G.

A study of the needs of a particular group of adolescent children; changes and adjustments to meet the needs of this particular group of children; and evaluation of progress.

En. 521.—Business Administration of a School System. 3 hours. 3 credits. LEPS.

Problems concerned with the procuring and spending of revenue; a thesis on a special problem.

En. 524.—Major Sequence in Secondary Education. 6 hours. 6 credits. LEWIS, HAL G.

Designed to give a thorough over-view of: (1) the needs of adolescents in our present social order, (2) changes in the high school program designed to meet these needs, (3) values on the basis of which present high school curricula may be judged.

En. 525.—Major Sequence in Childhood Education. 6 hours. 6 credits. STEVENS, GRACE A.

Designed to give a unified and thorough discussion of: (1) the needs of children between infancy and adolescence, (2) changes in the elementary school program designed to meet these needs, and (3) ways and means whereby efforts at curriculum reconstruction may be evaluated in the light of sound social and psychological bases.

En. 528.—Supervision of the Secondary School. 3 hours. 3 credits. WILLIAMS, W. R.

A course dealing with objectives, procedures, and means of evaluation of supervision in elementary and secondary schools, and in preparation of teachers. Each student completes a minor research.

En. 529.—Florida Workshop: Cooperating Schools Division. 6 hours. 6 credits. WILLIAMS, W. R.

Designed to provide an organization, materials, and assistance for principals and teachers of the cooperating schools in the Florida Program for Improvement of Instruction. Participants will be responsible for the production of programs that can be used in their school situations. Membership is limited to the faculties of the cooperating schools.

En. 536.—Supervision of the Elementary School. 3 hours. 3 credits. WILLIAMS, W. R.

The objectives, procedures, and means of evaluation of supervision in elementary schools; the preparation of teachers.

En. 539.—Exceptional Children. 3 hours. 3 credits. CRAGO.

Methods of finding, diagnosing and educating children who find difficulty in adjusting to the usual public school environment. Open to graduate students with background work in education and others with permission of instructor.

En. 544.—Legal Phases of Public School Administration. 3 hours. 3 credits. SIMMONS.

Special emphasis will be given to Florida conditions, school laws, constitutional provisions, judicial decisions, Attorney General's rulings, and regulations of the State Board of Education. Students will be required to prepare a term report dealing with some special field of school law. Only graduate students with experience in administration and supervision will be admitted.

En. 551.—Florida Workshop: Principals' Division. 6 hours. 6 credits. SIMMONS.

Open to a limited number of secondary school principals upon application to the Dean of the College of Education. This course is designed to acquaint principals with current principles and objectives of education and curriculum program basic to an improved school program.

En. 555.—Florida Workshop: Bulletin Series Division. 6 hours. 6 credits. NUTTER and others.

Designed to provide an organization, materials, and assistance for a group of principals and teachers engaged in the preparation of bulletins for professional and lay groups for use in the Florida Program for the Improvement of Instruction. Membership is limited to a selected group.

En. 556.—Florida Workshop: Bulletin Series Division. 6 hours. 6 credits. NUTTER and others.

A continuation of En. 555.

En. 557.—Work-Conference on School Administrative Problems. 6 hours. 6 credits. SIMMONS.

Committees will study special problems in school organization and administration for Florida and other southern states and reports will be prepared in the nature of recommended handbooks or manuals for use in the states concerned. The fields in which handbooks will be prepared will include the following: continuity of service and ethics for the instructional staff, school transportation, school plant operation and maintenance, textbook administration, responsibilities and relationships of the county board, school trustees, duties of the county superintendent, responsibilities and relationships of principals, the layman's relationship to the school.

En. 562.—Guidance and Counseling. 3 credits. WILLIAMS, W. R.

Designed to give classroom teachers and school administrators a general survey of the field of guidance and student personnel work in Elementary and Secondary Education. The course gives some consideration to the concept of education as guidance and the application of this concept to other phases of the school program. Major attention is devoted to methods of dealing with the human factor in the educative process. The student is expected to become familiar with the tools, agencies, and common practices in the field of counseling and guidance. Some attention will also be directed to a study of the various methods of organizing and administering a comprehensive student personnel program designed to reach all students in a systematic and effective way.

En. 565.—Problems in Agricultural Education. 3 hours. 3 credits. GARRIS. The first half of the course En. 565-566.

En. 565-566 is designed for graduate students who are qualified to select and pursue advanced problems. Problems will be selected to suit individual needs and the results of the study will be reported in the form of term papers. The class will meet for three hours every other Saturday during both semesters.

En. 566.—Problems in Agricultural Education. Seminar. 3 hours. 3 credits. GARRIS. The second half of the course En. 565-566.

En. 567.—Problems in Agricultural Education. Seminar. 3 hours. 3 credits. GARRIS. The first half of the course En. 567-568.

En. 567-568 is similar to En. 565-566 in organization and offered in alternate years with it.

En. 568.—Problems in Agricultural Education. Seminar. 3 hours. 3 credits. GARRIS. The second half of the course En. 567-568.

En. 583.—Foundations of Method. 3 hours. 3 credits. WILLIAMS, W. R.

Improvement of college and high school teaching. Open to graduate students and members of the University faculty who care to enroll.

En. 591.—Public School Administration. (Special Problems.) 3 hours. 3 credits. SIMMONS. The first half of the course En. 591-592. Prerequisite: En. 518 or permission of instructor.

En. 592.—Public School Administration. (Special Problems.) 3 hours. 3 credits. SIMMONS. The second half of the course En. 591-592.

En. 597.—Administration of the Elementary School. 3 hours. 3 credits. SIMMONS.

The administration of the elementary school; a study of problems of elementary school principals such as: supervision, professional growth, selection of teachers, relation of administrative officers, discipline, child health, attendance, etc.

ELECTRICAL ENGINEERING

El. 341.—Elements of Electrical Engineering. 3 hours. 3 credits. SMITH, E. F. The first half of course El. 341-342. Prerequisites: One year of college physics, including electricity and magnetism; differential and integral calculus; Ml. 182.

El. 341-342: Electric and magnetic circuits; electrostatics; electro-magnetics; representation of alternating currents by vectors and complex quantities; measurement of power in single phase and polyphase circuits; generation, transmission, and utilization of electrical energy; characteristics of apparatus; selection, testing, and installation of electrical equipment.

El. 342.—Elements of Electrical Engineering. 3 hours. 3 credits. SMITH, E. F. The second half of the course El. 341-342.

El. 344.—Problems in Direct and Alternating Currents. 3 hours. 3 credits. WILSON, J. W. Corequisite: El. 342.

Kirchhoff's Laws for electric and magnetic circuits; single phase circuit analysis; energy and power; wave form; coupled circuits; balanced and unbalanced polyphase circuits.

El. 345.—Electrical Illumination. 2 hours, and 3 hours laboratory. 3 credits. WILSON, J. W. Corequisite: El. 341.

Illumination; light sources; light control; application; circuits and wiring; control equipment; floodlighting.

El. 346.—Electrical Communications. 3 hours, and 3 hours laboratory. 4 credits. SMITH, E. F. Corequisite: El. 342, El. 344.

Speech and hearing; receivers and loud speakers; principles of various systems of wire and radio telegraphy and telephony; elementary tube theory; amplifiers, radio receivers, and transmitters.

El. 349.—Dynamo Laboratory. 3 hours laboratory. 1 credit. SMITH, E. F. The first half of the course El. 349-350. Corequisite: El. 341.

El. 349-350: Experimental studies and tests on direct current and alternating current apparatus.

El. 350.—Dynamo Laboratory. 3 hours laboratory. 1 credit. SMITH, E. F. The second half of the course El. 349-350. Corequisite: El. 342.

El. 440.—Industrial Applications of Electrical Equipment. 3 hours. 3 credits. SMITH, E. F. Prerequisite: El. 467.

Application of motors to industry and transportation; electric heating; electric welding; starting and speed control; protective equipment signal systems; wiring design for light and power.

El. 441.—Electrical Engineering Seminar. 1 hour. 1 credit. CRAIG. The first half of the course El. 441-442. Prerequisites: Not less than 14 credits in courses in Electrical Engineering.

El. 441-442: Discussions on topics from current engineering periodicals, on research projects in progress in the laboratories, and on new developments in industry.

El. 442.—Electrical Engineering Seminar. 1 hour. 1 credit. CRAIG. The second half of the course El. 441-442.

El. 443.—Industrial Electronics. 2 hours, and 3 hours laboratory. 3 credits. CRAIG. The first half of the course El. 443-444. Prerequisites: El. 342, El. 344.

El. 443-444: Electron tubes and their application to industry.

El. 444.—Industrial Electronics. 2 hours, and 3 hours laboratory. 3 credits. CRAIG. The second half of the course El. 443-444.

El. 445.—Electrical Instruments, Meters, and Relays. 2 hours, and 3 hours laboratory. 3 credits. WILSON, J. W. Prerequisites: El. 342, El. 344, El. 346.

Indicating instruments; demand instruments; recording and integrating; instrument transformers; measurement of circuit constants at low frequency and at radio frequency; measurement of frequency; wave form, power factor and phase angle; vacuum tube instruments.

El. 446.—Electric Power Transmission. 3 hours. 3 credits. WILSON, J. W. Prerequisite: El. 449.

Electric and magnetic field distribution; corona; performance, electrical and mechanical design of short and long lines; accessories and equipment.

El. 449.—Theory of Electric Circuits. 3 hours. 3 credits. SMITH, E. F. Prerequisites: El. 342, El. 344.

Non-sinusoidal wave analysis; coupled circuits; electric filter theory; introduction to symmetrical components; simple transient analysis.

Radio courses in the Department of Electrical Engineering are given in cooperation with Radio Station WRUF. Qualified students can secure practical experience in station operation.

El. 453.—Radio Station Operation. 3 hours laboratory. 1 credit. CRAIG. The first half of the course El. 453-454. Prerequisite: El. 346.

El. 453-454: Operation, maintenance, and testing of a broadcasting station, under actual operating conditions and under the direction of licensed operators.

El. 454.—Radio Station Operation. 3 hours laboratory. 1 credit. CRAIG. The second half of the course El. 453-454.

El. 462.—Ultra-High Frequency Technique. 3 hours, and 3 hours laboratory. 4 credits. STAFF. Prerequisite: El. 465.

Methods of generating, transmitting and receiving centimeter waves; special techniques useful to the communications branches of the armed forces.

El. 465.—Radio Engineering. 3 hours, and 5 hours laboratory. 5 credits. STAFF. The first half of the course El. 465-466. Prerequisite: El. 346. Co-requisite: El. 449.

El. 465-466: Component parts of systems of radio communications, including circuit constants, vacuum tube amplifiers, oscillators, modulators, detectors, and rectifiers; complete radio communication systems; propagation of radio waves; antenna systems.

El. 466.—Radio Engineering. 3 hours, and 5 hours laboratory. 5 credits. STAFF. The second half of the course El. 465-466.

El. 467.—Alternating Current Apparatus. 3 hours, and 5 hours laboratory. 5 credits. SMITH, E. F., WILSON, J. W. The first half of the course El. 467-468. Prerequisite: El. 341-342, El. 344.

El. 467-468: Design, characteristics, and operation of alternating current apparatus particularly transformers, generators, motors, rotary convertors, and mercurn arc rectifiers. Experimental tests on alternating current apparatus.

El. 468.—Alternating Current Apparatus. 3 hours, and 5 hours laboratory. 5 credits. SMITH, E. F., WILSON, J. W. The second half of the course El. 467-468.

El. 493.—Electrical Design and Experimental Procedure. Variable credit. STAFF. The first half of the course El. 493-494.

El. 493-494: Special projects are studied and reports prepared thereon.

El. 494.—Electrical Design and Experimental Procedure. Variable credit. STAFF. The second half of the course El. 493-494.

GRADUATE COURSES

Prerequisites: A college course in Physics, Differential and Integral Calculus, and a minimum of thirty-six credits, or the equivalent, in courses in the general field of electrical engineering, together with special prerequisites stated for individual courses.

El. 541.—Advanced Experimental Electrical Engineering. Variable credit. CRAIG and STAFF. The first half of the course El. 541-542.

El. 541-542 is an experimental investigation of electrical apparatus.

El. 542.—Advanced Experimental Electrical Engineering. Variable credit. CRAIG and STAFF. The second half of the course El. 541-542.

El. 543.—Advanced Electric Circuit Theory. 3 hours. 3 credits. STAFF. Laws of electric and magnetic circuits; transcient phenomena.

El. 545.—Advanced Course in Communication Engineering. 3 hours. 3 credits. STAFF. The first half of the course El. 545-546.

El. 545-546: Theory of high frequency circuits and apparatus.

El. 546.—Advanced Course in Communication Engineering. 3 hours. 3 credits. STAFF. The second half of the course El. 545-546.

El. 547.—Advanced Communications Laboratory. 4 hours. 2 credits. STAFF. The first half of the course El. 547-548.

El. 547-548: Laboratory work to accompany El. 545-546.

El. 548.—Advanced Communications Laboratory. 4 hours. 2 credits. STAFF. The second half of the course El. 547-548.

El. 549.—Electrical Engineering Research. Variable credit. WEIL, CRAIG.

El. 550.—Electrical Engineering Research. Variable credit. WEIL, CRAIG.

El. 551.—Symmetrical Components. 3 hours. 3 credits. CRAIG.
The theory of symmetrical components applicable to unbalanced currents and voltages.

El. 552.—Theory of Vacuum Tubes. 3 hours. 3 credits. CRAIG.
Emission of electrons; theory of diodes and triodes; theory of multi-element tubes.

ENGLISH

The courses in English, advanced as well as introductory, have one common purpose: to enrich the student's experience by intimate association with those writings in our language, past and present, which contribute most to meaningful living. The central aim is to help men of all vocations acquire some appreciation of our literary heritage, essential to a cultivated outlook on life, and to help men of all vocations acquire greater facility in the knowledge and use of our language. The aim is thus twofold: education for enlightened leisure and for enlightened labor. Bacon's words are pertinent: "Studies serve for delight, for ornament, and for ability. . . . Some books are to be tasted, others to be swallowed, and some few to be chewed and digested."

Majors.—The following courses are normally required for English majors in the College of Arts and Sciences: CEh. 37-38, Eh. 301-302, Eh. 305, Eh. 399. CEh. 37-38 should, if possible, be elected in the sophomore year. English majors should elect a foreign language in the sophomore year.

Prerequisites.—There are no rigid prerequisites for non-majors.

Important.—All of the courses in English are so organized that they may be taken for credit either semester.

Freshman English see page 127.

Eh. 215.—Literary Masters of America. 3 hours. 3 credits. HAINES. The first half of the course Eh. 215-216. May be taken for credit without Eh. 216.
Eh. 215-216: The writers emphasized are selected from the most eminent American authors between Irving and Frost, such writers as everyone should or would like to know, regardless of his intended vocation.

Eh. 216.—Literary Masters of America. 3 hours. 3 credits. HAINES. The second half of the course Eh. 215-216. May be taken for credit without Eh. 215.

Eh. 217.—Literary Masters of England. 3 hours. 3 credits. ROBERTSON. The first half of the course Eh. 217-218. May be taken for credit without Eh. 218.
Eh. 217-218: The most interesting and significant English writers are read and discussed, primarily for an appreciation of their art and outlook on life.

Eh. 218.—Lterary Master of England. 3 hours. 3 credits. ROBERTSON. The second half of the course Eh. 217-218. May be taken for credit without Eh. 217.

Eh. 223.—Masterpieces of World Literature. 3 hours. 3 credits. MURPHREE. The first half of the course Eh. 223-224. May be taken for credit without Eh. 224.
Eh. 223-224: A lecture and reading course designed to acquaint the student with some of the great books of the world.

Eh. 224.—Masterpieces of World Literature. 3 hours. 3 credits. MURPHREE. The second half of the course Eh. 223-24. May be taken for credit without Eh. 223.

Eh. 301.—Shakespeare. 3 hours. 3 credits. ROBERTSON.

The primary design is to increase the student's enjoyment and appreciation of the plays. Devoted chiefly to the romantic comedies and the history plays, including *A Midsummer Night's Dream, The Merchant of Venice, Much Ado, As You Like It, Twelfth Night, Richard the Second,* and *Henry the Fourth.* As an aid to the reading of Shakespeare, some of the most interesting features of the Elizabethan stage and drama are treated briefly.

Eh. 302.—Shakespeare. 3 hours. 3 credits. ROBERTSON.

The great tragedies will be studied, notably *Hamlet, Othello, King Lear, Macbeth,* and *Antony and Cleopatra.*

Eh. 303.—Major Poets of the Victorian Period. 3 hours. 3 credits. FARRIS.

Reading and discussion of such major writers as Browning, Tennyson, Arnold, the Rossettis, Morris, Swinburne, and Kipling.

Eh. 304.—Major Prose Writers of the Victorian Period. 3 hours. 3 credits. FARRIS.

Reading and discussion of such eminent Victorians as Carlyle, Dickens, Macaulay, Arnold, Ruskin, Thackeray, Huxley, and Hardy.

Eh. 305.—Introduction to the Study of the English Language. MORRIS.

Designed to meet the needs of three types of students: (a) for the general student it offers a means of improving his written and spoken English by showing him what "good English" is; (b) for the English teacher in the secondary school it provides an adequate minimum knowledge of the English Language; (c) for the English Major and beginning graduate student it serves as an introduction to further linguistic study. Primary emphasis is placed, not upon grammatical rules, but rather upon the most interesting features of our language as written and spoken.

***Eh. 307.—English and Scottish Popular Ballads.** 3 hours. 3 credits. MORRIS.

A study of the English and Scottish popular ballads, their origin in folklore and their development and spread to America.

***Eh. 308.—American Folksongs.** 3 hours. 3 credits. MORRIS.

A study of the American folksong, with consideration of the English and Scottish survivals. The introduction to the course will consider the general subject of folklore and the folksong as a part of folklore.

Eh. 309.—Short Story. 2 hours. 2 credits. FARRIS.

Studies in the history, criticism, and appreciation of the short story as a literary type. Lectures, extensive readings.

***Eh. 312.—Exposition.** 2 hours. 2 credits. FARRIS.

Advanced studies in composition especially designed to meet the needs of those intending to pursue graduate study, those preparing to enter the professions, engage in research, etc. Particular attention to magazine writing.

Eh. 327.—Imaginative Writing. 2 hours. 2 credits. FARRIS. The first half of the course Eh. 327-328. May be taken for credit without Eh. 328.

Eh. 327-328: Designed to help the student who desires guidance in developing his capacity for original work. Group discussion, individual conferences, many papers.

Eh. 328.—Imaginative Writing. 2 hours. 2 credits. FARRIS. The second half of the course Eh. 327-328. May be taken for credit without Eh. 327.

***Eh. 354.—Browning.** 3 hours. 3 credits. FARRIS.

Wide reading and discussion of the writings of Browning and a few of his immediate contemporaries.

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*Not offered in 1945-46.

Eh. 355.—Business Writing. 3 hours. 3 credits. CLARK.

A general course in business letter and report writing. The more common types of business letters are written, such as letters of application, letters of credit, and sales letters. Reports are written upon projects of the students' special interest.

This course is especially designed to meet the needs of students in Business Administration and allied fields. Prerequisite: C-3.

***Eh. 361.—The Novel.** 3 hours. 3 credits. FARRIS. The first half of the course Eh. 361-362. May be taken for credit without Eh. 362.

Eh. 361-362: The development of the novel from earlier forms; the great novelists of the eighteenth and nineteenth centuries.

***Eh. 362.—The Novel.** 3 hours. 3 credits. FARRIS. The second half of the course Eh. 361-362. May be taken for credit without Eh. 361.

Eh. 363.—Contemporary Literature: Drama. 3 hours. 3 credits. ROBERTSON.

A study of recent and contemporary drama, with emphasis upon such major English and American playwrights as Shaw and Eugene O'Neill. The work of Ibsen and other Continental writers will be treated briefly.

Eh. 365.—Contemporary Literature: Fiction. 3 hours. 3 credits. MOUNTS.

A consideration of the most important English and American writers of prose fiction from Thomas Hardy to the present, with major emphasis upon recent novelists.

Eh. 366.—Contemporary Literature: Poetry. 3 hours. 3 credits.

Reading, critical interpretation, and discussion of modern British and American poetry, with chief emphasis upon recent poetry.

Eh. 399.—Introduction to the Study of Literature. 3 hours. 3 credits. CONGLETON.

A consideration of the nature of literature, its types, forms, content, and values. Designed to provide the student with a better critical understanding of literary art. Lectures, wide reading, and discussion.

Eh. 401.—American Literature. 3 hours. 3 credits. FARRIS.

A study of American literature from the beginnings to 1850.

Eh. 402.—American Literature. 3 hours. 3 credits. FARRIS.

A general survey of American literature (all types and all regions) from Whitman to the present, with the major emphasis upon such writers as Whitman, Howells, James, Twain, Lanier, the local colorists, Wharton, Cather, Glasgow, Lewis, Robinson, Frost, and O'Neill.

***Eh. 405.—Drama of the Restoration and Eighteenth Century.** 3 hours. 3 credits. ROBERTSON.

A survey of the English stage from Dryden to Sheridan, with emphasis upon principal plays, playwrights, and dramatic tendencies.

Eh. 409.—Chaucer. 3 hours. 3 credits.

Designed to help the student appreciate Chaucer as a story teller, as a wise, humorous, and penetrating observer of human life, and as a great poet.

Eh. 413.—The Renaissance in England. 3 hours. 3 credits.

The origin of the movement in Italy and its spread in England; special emphasis on the Renaissance humanists, such as Colet, Erasmus, and Moore, and upon the 16th century poets, such as Skelton, Wyatt, Sidney, and Spenser.

Eh. 414.—The Renaissance in England. 3 hours. 3 credits.

The lyric and epic poetry from Spenser through Milton; the prose from Sidney through Browne. Emphasis will be placed on such figures as Bacon, Donne, Herrick, Herbert, Drayton, Campion, Walton, Fuller, and Milton.

***Eh. 415.—Milton.** 3 hours. 3 credits. MOUNTS.

Though the emphasis will fall upon *Paradise Lost*, all of Milton's poetry will be read and much of his prose. Attention will be given to Milton's social, religious, educational, and philo-

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*Not offered in 1945-46.

sophical views, and his work will be related to his age. Wide reading in the literature of the period will be expected.

***Eh. 417.—Spenser.** 3 hours. 3 credits. MOUNTS.

The purpose is to lead the student to a large familiarity with the text of Spenser, to deal with some of the problems of allusion, structure and style, and to suggest the poet's relationship to his predecessors and contemporaries.

***Eh. 418.—The Literature of the South.** 3 hours. 3 credits.

A study of the poetry and prose written by Southerners or reflecting the life in the region, and a consideration of various literary centers and local color movements. Chief emphasis on 19th and 20th century literary productions.

***Eh. 419.—Elizabethan Drama.** 3 hours. 3 credits. ROBERTSON.

A course in the origins and development of the Elizabethan drama, exclusive of Shakespeare, with emphasis upon such major writers as Marlowe, Kyd, Chapman, Marston, Webster, and Jonson.

Eh. 433.—English Literature of the 18th Century. 3 hours. 3 credits. CONGLETON.

A study of English prose and poetry from Dryden through Pope, with chief emphasis upon Dryden, Defoe, Addison and Steele, Pope, and Swift.

***Eh. 434.—English Literature of the 18th Century.** 3 hours. 3 credits. CONGLETON.

A study of the prose and poetry of the age of Dr. Johnson.

Eh. 443.—The English Romantic Period. 3 hours. 3 credits. MORRIS.

Reading and discussion. Chief emphasis on the work of Burns, Blake, Coleridge, and Wordsworth.

***Eh. 444.—The English Romantic Period.** 3 hours. 3 credits. MORRIS.

Reading and discussion. Chief emphasis on the work of Byron, Keats, and Shelley.

GRADUATE COURSES

Prerequisites: A University of Florida undergraduate major in English or its equivalent. Such a major requires at least twenty-four semester hours of English in the Upper Division and includes courses in important periods of English literary history, American literature, and the history of the English language. Such a major presupposes, furthermore, adequate preparation in such important related fields as history, philosophy, and foreign language.

Seminar: All graduate majors are expected to attend a seminar (Eh. 529) the purpose of which is to provide an introduction to the problems and methods of graduate study in the field of English, and to discuss problems in the teaching of English.

Eh. 501.—American Literature. 3 hours. 3 credits. FARRIS.

A study of American literature from the beginnings to 1850.

Eh. 502.—American Literature. 3 hours. 3 credits. FARRIS.

A study of American literature and literary movements from Whitman to the present. Extensive readings and reports as directed.

Eh. 505.—Drama of the Restoration and Eighteenth Century. 3 hours. 3 credits. ROBERTSON.

The English stage from Dryden to Sheridan.

Eh. 509.—Chaucer. 3 hours. 3 credits. ROBERTSON.

A thorough study of the *Canterbury Tales;* collateral readings (in translation) of important medieval writings.

Eh. 510.—Chaucer. 3 hours. 3 credits. ROBERTSON.

A thorough study of *Troilus and Cressida* and the minor poems.

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*Not offered in 1945-46.

Eh. 511.—Old English. 3 hours. 3 credits. MORRIS.
Old English grammar and reading from selected monuments. A linguistic rather than a literary course.

Eh. 512.—Middle English. 3 hours. 3 credits.
Middle English grammar and reading from selected monuments. Both a linguistic and a literary course.

Eh. 513.—The Renaissance in England. 3 hours. 3 credits.
A consideration of the Italian origins of the movement and a study of the development of English literature. Extensive readings and reports.

Eh. 514.—The Renaissance in England. 3 hours. 3 credits.
A study of the lyric and epic poetry and the prose masterpieces to 1660. Extensive readings and reports.

Eh. 515.—Milton. 3 hours. 3 credits. MOUNTS.
Though the emphasis will fall upon *Paradise Lost*, all of Milton's poetry will be read and much of his prose. Attention will be given to Milton's social, religious, educational, and philosophical views, and his work will be related to his age. Wide reading in the literature of the period will be expected.

Eh. 517.—Spenser. 3 hours. 3 credits. MOUNTS.
The purpose is to lead the student to a large familiarity with the text of Spenser, to deal with some of the problems of allusion, structure and style, and to suggest the poet's relationship to his predecessors and contemporaries.

Eh. 518.—Studies in American Literature. 3 hours. 3 credits.
The particular field varies from year to year.

Eh. 519.—Elizabethan Drama. 3 hours. 3 credits. ROBERTSON.
A course in the origins and development of the Elizabethan drama, exclusive of Shakespeare, with emphasis upon such major writers as Marlowe, Kyd, Chapman, Marston, Webster, and Jonson.

Eh. 529.—Graduate Seminar. 2 hours. 1 credit. HAINES.

Eh. 530.—Individual Work. Credit arranged. STAFF.
Provision will be made for students who desire to supplement the regular courses by individual reading or investigation under guidance. Students will be helped to plan a definite program, and will meet a member of the department staff in frequent conferences.

Eh. 533.—English Literature of the 18th Century. 3 hours. 3 credits. CONGLETON.
A study of English prose and poetry from Dryden through Pope.

Eh. 534.—English Literature of the 18th Century. 3 hours. 3 credits. CONGLETON.
A study of the prose and poetry of the age of Dr. Johnson.

Eh. 541.—Beowulf. 3 hours. 3 credits.
Reading and critical study of this Old English monument.

Eh. 543.—The English Romantic Period. 3 hours. 3 credits. MORRIS.
A study chiefly of the poetry and criticism of Coleridge and Wordsworth.

Eh. 544.—The English Romantic Period. 3 hours. 3 credits. MORRIS.
A study principally of Byron, Keats, and Shelley.

ENTOMOLOGY

Ey. 201.—Man and Insects. Offered only in the second semester. 3 hours. 3 credits. CREIGHTON and HIXSON. This course or Ey. 301 are prerequisites

or corequisites of all courses in Entomology except Ey. 314. Only students in freshmen and sophomore classes permitted to register for this course.

The influence of insects upon man's agricultural and social world. The course treats of the contrast between the history of man and insects; the influence of insects upon domestic life, agriculture, commerce, industry, wars, human diseases, and medical practices, machine development, engineering, legal practices, scientific investigations, and upon other insects. It is designed to broaden the knowledge of all students concerning the influence of man's greatest limiting factor in the continuance of the human race.

Ey. 301.—Introduction to Entomology. 2 hours, and 4 hours laboratory. 4 credits. CREIGHTON and HIXSON. This course or Ey. 201 are prerequisites or corequisites for all other courses in Entomology except Ey. 314.

An introduction to entomology which is based upon a study of the structure, classification, life histories, and control of major insect enemies of American agricultural crops. Particular stress is placed upon Southern and Florida economic insects. This course is designed for all students in the College of Agriculture either as a pre or corequisite for other entomology courses.

***Ey. 304.—Advanced Entomology.** 2 hours, and 6 hours laboratory. 5 credits. CREIGHTON.

A survey of the major phases of entomology including biological and natural control, insect histology, insect taxonomy, insect ecology, economic entomology, insect behavior, and the experimental method. This course is designed primarily for students majoring in the field of entomology.

Ey. 311.—Entomology Seminar. Offered each semester. 1 hour. 1 credit. CREIGHTON and HIXSON.

This is attended by all graduates and undergraduates in the department of entomology. Students are required to prepare papers dealing with some phase of agriculture and submit them for correction by members of the staff. At regular intervals students appear before the seminar group at which time they give talks dealing with the subjects selected.

Ey. 314.—Principles of Economic Entomology. 2 hours, and 4 hours laboratory. 4 credits. HIXSON. For agricultural teachers only.

The fundamental principles of entomology, stressing the economic aspects. This course includes a study of national insect problems with a detailed discussion of the insects of importance on all cultivated plants and domestic animals in the Florida area.

Ey. 405.—Insect Control. 2 hours, and 2 hours laboratory. 3 credits. CREIGHTON.

A study of the methods of control including insecticides, repellants, cultural, biological, legal, and natural. Consideration is given the toxicological principles of insecticides. This course is designed for all students in agriculture and provides them with ideal training to meet the everyday problems of insect attacks upon man, domestic animals, and cultivated plants.

Ey. 408.—Insect Morphology and Physiology. 3 hours, and 4 hours laboratory. 5 credits. CREIGHTON.

The external and internal anatomy of insects together with the functioning of the parts of the body and the systems of organs. A course designed for students majoring in the department of entomology.

Ey. 411.—Apiculture. An Introduction to Bee Culture. 2 hours. 2 credits. CREIGHTON.

A study of the organization of a bee colony, life processes, races of bees, manipulation, value of colonies, nectar and pollen sources, pollination value, diseases, selection of apiary site, economic importance of industry, apparatus, and marketing of products.

Ey. 420.—Medical and Veterinary Entomology. Offered each semester. 3 hours. 3 credits. HIXSON.

A study of the Arthropods that are parasitic upon man and animals, including insects and their near relatives. This course includes a study of insects and their close relatives that affect

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*Not offered in 1945-46.

the health of man and animals, and their relationship to diseases. This course is designed for students in agriculture, particularly in entomology and animal industry; also for students in other educational work in which the health of man and animals are important considerations.

Ey. 430.—Insect Histology. 1 hour, and 2 hours laboratory. 2 credits. CREIGHTON.

The histological structure of insects. A study of the laboratory technique involved in the preparation of insect tissues for microscopical study. A course designed for students majoring in entomology and other students who are interested in technique methods.

***Ey. 432.—Florida Fruit and Vegetable Insects.** 2 hours, and 2 hours laboratory. 3 credits. CREIGHTON.

A detailed study of the identification, life histories, and control of the major insect pests of Florida's fruit and vegetable crops. A course designed for all students in the College of Agriculture, especially those interested in economic plant life.

Ey. 441.—Plant Quarantine, Inspection, and Control. Offered only in the second semester. 2 hours, and 2 hours laboratory. 3 credits. CREIGHTON, BROWN, GOODWIN.

A study of the legal, operational, and administrative principles of plant quarantine inspection and control together with a study of plant quarantine organization methods and control and eradication efforts of the past and present. A course designed for all students interested in the future of Florida's agricultural industry.

Ey. 450.—Entomology and Sanitation (Public Health Entomology). 2 lectures. 2 laboratory periods. 4 credits. CREIGHTON, CODY, PHELPS, the College of Engineering cooperating.

Studies of insects and related organisms affecting the health and comfort of man, and algae and other growths found in water with engineering principles applicable to sanitation. Designed for students interested in Sanitary Engineering, Entomology, Health Education, Sociology and Agriculture.

GRADUATE COURSES

Prerequisites: A Bachelor of Science degree or its equivalent. The student should have thirty semester hours in the biological sciences, with twelve or more hours in the field of Entomology. Should he be deficient in this respect the student will be expected to fufill these requirements during the time that he is pursuing work that will lead to the Master of Science degree. This work will be taken as foundation work with no graduate credit.

Ey. 501.—Methods of Research in Entomology. 3 hours. 3 credits. CREIGHTON, WATSON, BERGER, MERRILL.

A survey of special laboratory, insectary and field methods in research dealing with the several phases of entomology. A study of the leading research problems of the state and nation, with careful consideration of the more complicated ones.

Ey. 503.—Problems in Entomology. 6 hours. 3 credits. CREIGHTON, WATSON, TISSOT, HIXSON, BROWN, GOODWIN, BOYD.

Consists of a problem for study which may be selected in any field of entomological specialization; including Histology, Morphology, Taxonomy, Embryology, Biological Control, Ecology, Toxicology, Plant Quarantine, Inspection, Control, Commercial, Life History and Habits, Biology, and Medical and Veterinary Entomology.

Ey. 507.—Advanced Insect Taxonomy. 5 hours. 3 credits. TISSOT.

An advanced study of systematic entomology, including the scope of subject, principles, grouping of species, basis of systematic entomology, preparation of material, drawing and photographing material, description of insects, rules of nomenclature, and the various systems of classification.

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*Not offered in 1945-46.

Ey. 515.—Biological and Natural Control. 4 hours. 3 credits. CREIGHTON and BERGER.

A consideration of the fundamental principles of natural and biological control, including basis of control; resistant hosts; function of bacteria, fungi, viruses and protozoa; use of parasitic invertebrate animals; special emphasis upon Hexapods of value in natural and biological control; and cases where such control has been of great value in control of economic species.

Ey. 516.—Insect Ecology. 4 hours. 3 credits. TISSOT.

A study of ecological principles and their application to insect life in which the economic applications are stressed.

FORESTRY

Fy. 220.—Introduction to Forestry. Offered each semester. 2 hours. 2 credits. WESTVELD and ZEIGLER.

A basic course designed to acquaint the student with the various phases and fundamental underlying principles of the field of Forestry.

Fy. 226.—Dendrology of Angiosperms. 2 hours, and 3 hours field. 3 credits. Offered second semester only.

The botany of the angiosperms of the United States, silvical characterization including general range and local occurrence, field identification.

Fy. 227.—Dendrology of Gymnosperms. 1 hour, and 3 hours field. 2 credits. Offered first semester only.

The botany of gymnosperms of the United States, silvical characterization including general and local occurrence, field identification.

Fy. 228.—Forest Mensuration. 2 hours, and 3 hours field. 3 credits. Offered second semester only.

Principles and practice of measuring forests and forest products with special attention to Florida conditions.

Fy. 229.—Forest Mensuration. 1 hour, and 3 hours field. 2 credits. Offered first semester only.

A continuation of Forestry 228.

Fy. 306.—Forest Protection. Offered only in the first semester. 2 hours. 2 credits. FRAZER.

Technique of forest fire protection, as developed and practiced in the United States with special emphasis on the southern states.

Fy. 309.—Wood Technology and Timber Physics. Offered only in the second semester. 1 hour, and 4 hours in field. 3 credits. DEVALL. Prerequisite: Fy. 301.

Identification of commercial woods of the United States, especially those of Florida, by appearance, structure, use of microscope, hand lens; preparation of wood slides; testing for mechanical properties of woods; effect of density on strength, etc.

Fy. 310.—Reforestation and Nursery Practice. 2 hours, and 4 hours laboratory. 3 credits. MILLER.

Cleaning, grading, germination tests, plantings in School nursery, cultivation and care of seedlings.

Fy. 311.—Foundations of Silviculture. 2 hours, and 4 hours field and laboratory. 3 credits. WESTVELD.

Classification of forest vegetation: climatic, edaphic, physiographic, and biotic factors of the site; forest succession.

Fy. 313.—Farm Forestry. Offered each semester. 2 hours, and 2 hours field and laboratory. 3 credits. WESTVELD.

Farm forests in the farm management plan; economic and other values of farm forests; methods of growing and protecting farm forests; measuring and marketing farm forest products; wood preservation. Florida conditions.

Fy. 318.—Forest Utilization and Products. 3 hours. 3 credits. ZIEGLER.

Rough forest products, poles, piling, logs, cross-ties, posts, pulp-wood, mine timbers, boxes and crates, cooperage, furniture and flooring, veneers and plywood, naval stores industry—field operations, turpentine still and products.

Fy. 320.—Silviculture. 1 hour, and 8 hours field and laboratory. 3 credits. WESTVELD. Prerequisite: Fy. 311.

Factors influencing natural regeneration: methods of cutting to secure natural regeneration: methods of cutting for stand improvement; slash disposal; preparation of silvicultural plans.

Fy. 351.—Forest Conservation. 3 hours. 3 credits. FRAZER.

Brief history of the forest conservation movement in the United States with particular emphasis on the southern states and Florida, including the work of several states, various agencies of the federal government, private associations and individuals.

Fy. 353.—Principles of Wildlife Management. Offered each semester. 3 hours. 3 credits. DEVALL.

The basic principles and concepts of wildlife as a crop, its increase, conservation and management, inclusive of game birds, fish, and mammals.

Fy. 407.—Forest Recreation. 1 hour, and 4 hours laboratory. 3 credits. MILLER.

Practical experience in designing of recreational areas. Construction, use, care, etc., of such areas.

Fy. 409.—Forest Finance. 2 hours. 2 credits. MILLER.

Forests as investments, interest rates, carrying charges, maturity, relation of intermediate to final and net incomes, and forest insurance.

Fy. 410.—Forest History and Policy. 2 hours. 2 credits. FRAZER.

History of forest land use in the United States. Development of conservation agencies and study of federal and state laws affecting forests.

Fy. 412.—Seminar. Offered each semester. 1 hour. 1 credit. STAFF.

Round-table discussion of the trends, developments, problems, etc., that are found in forestry from time to time.

Fy. 413.—Regional Silviculture. 3 hours. 3 credits. WESTVELD. Prerequisites: Fy. 311, Fy. 320.

The ecological and economic factors that influence silvicultural practice, and the application of silvicultural methods to the forests of the United States and Alaska.

Fy. 416.—Forest Management Working Plans. 1 hour, and 5 hours in field. 3 credits. ZIEGLER.

Application of principles of Forest Management in making working plans for specific forest areas, beginning with the school forest working plans; measures for sustained yield, increase or reduction of growing stock.

Fy. 418.—Logging and Lumbering. 3 hours. 3 credits. MILLER.

Utilization of major forest products; logging engineering, transportation, equipment, costs, lumbering manufacture, plant, milling practice, and merchandising products.

Fy. 419.—Principles of Forest Management. 3 hours. 3 credits. ZIEGLER.

Principles of forest management, forest organization, management plans, subdivisions of forest area, forest regulations, cutting cycle, normal forest, etc.

Fy. 420.—Forest Economics and Administration. 3 hours. 3 credits. ZIEGLER.

A world survey of forest resources; land economics as applied to forestry; supply, demand, price trends and forest net income, forest taxation, public and private forest administration.

Fy. 422.—Advanced Mensuration. 2 hours. 2 credits. FRAZER.

Advanced problems in forest mensuration, involving sampling of forest stands and study of growth.

Fy. 429.—Industrial Education Forestry. 2 hours, and 2 hours laboratory. 3 credits. NEWINS. For Industrial Education students only.

Identification of woods, cell structure, seasoning, sap stains, etc.

Fy. 431.—Forest Problems Seminar. Offered each semester. Lecture, field and laboratory work arranged. 2 to 5 credits. STAFF.

Discussion of and investigation in some particular field of Forestry or wild life management. The student will be assigned to the member of the staff in whose field his interest lies.

Fy. 432.—Forest Improvements. Offered only in the second semester. 1 hour, and 4 hours field work. 3 credits. FRAZER.

The character, installation and maintenance of the forest property necessary for administration and fire control.

Fy. 434.—Applied Wildlife Management. Offered each semester. 2 hours, and 4 hours field work. 3 credits. DEVALL. Prerequisite: Fy. 353.

The application of management principles to selected species of wildlife; life history studies, field methods of wildlife investigation, observation studies, census and mapping methods, and food studies.

FRENCH

IMPORTANT: With the exception of Fh. 33-34 and Fh. 201-202, all the courses in French may be taken either semester for credit. In special instances Fh. 202 may be taken—with permission of the instructor—even though the student has not had Fh. 201. In all other courses the first semester is not a prerequisite for the second semester.

Fh. 33.—First-Year French. 3 hours. 3 credits. ATKIN, BRUNET. The first half of the course Fh. 33-34. Open to those students who have had no previous work in French.

Fh. 33-34: A beginning course basic for further study. The objective is a moderate proficiency in reading and speaking the language.

Fh. 34.—First-Year French. 3 hours. 3 credits. ATKIN, BRUNET. The second half of the course Fh. 33-34.

Fh. 35.—First-Year French. 6 hours. 6 credits. BRUNET. Open to students who have had no previous work in French.

A beginning course basic for further study. The objective is a moderate proficiency in reading and speaking the language. With six class hours per week, this course covers the same ground in one semester as Fh. 33-34 does in two semesters.

Fh. 201.—Second-Year French. 3 hours. 3 credits. ATKIN, BRUNET. The first half of the course Fh. 201-202. Prerequisite: One year of college French, or two years of high school French.

Fh. 201-202: Readings from modern French writers. Practice in speaking.

Fh. 202.—Second-Year French. 3 hours. 3 credits. ATKIN, BRUNET. The second half of the course Fh. 201-202.

Fh. 305.—Conversation and Composition. 3 hours. 3 credits. ATKIN. Prerequisite: Fh. 201-202 or permission of the instructor.

Training and practice in oral and written expression.

Fh. 306.—Conversation and Composition. 3 hours. 3 credits. ATKIN. Prerequisite: Fh. 201-202 or permission of the instructor.

Practice in precise and fluent speaking and in correct and effective composition.

Fh. 307.—Masterpieces of French Literature. 3 hours. 3 credits. ATKIN. Prerequisite: Fh. 201-202 or permission of the instructor.

Reading and discussion of such eminent writers as Rabelais, Montaigne, Moliere, Racine, Voltaire, and Rousseau.

Fh. 308.—Masterpieces of French Literature. 3 hours. 3 credits. ATKIN. Prerequisite: Fh. 201-202 or permission of the instructor.

Reading and discussion of such eminent writers as Victor Hugo, Balzac, Sainte-Beuve, Flaubert, Renan, and Anatole France.

***Fh. 403.—French Literature, 1800-1850.** 3 hours. 3 credits. ATKIN. Prerequisite: Fh. 307-308 or permission of the instructor.

Study of the chief literary figures of the first half of the nineteenth century.

***Fh. 404.—French Literature, 1850-1900.** 3 hours. 3 credits. ATKIN. Prerequisite: Fh. 307-308 or permission of the instructor.

Study of the writers of the second half of the nineteenth century.

***Fh. 417.—French Pronunciation.** 2 hours. 2 credits. ATKIN. Prerequisite: Fh. 201-202.

Description of French speech sounds; practice in pronunciation.

***Fh. 418.—Selections from Contemporary French.** 2 hours. 2 credits. ATKIN. Prerequisite: Fh. 201-202.

The selections read, and discussed in English, consisting mostly of brief extracts from recent books and periodicals, are good specimens of French expository prose, and are informative of French ideas and opinions. Considerable attention is given to points of vocabulary and idiomatic phrasing.

***Fh. 420.—Contemporary French Civilization.** 2 hours. 2 credits. ATKIN. Prerequisite: Fh. 201-202.

Land, people, institutions and culture of present-day France. The course is conducted in English with reading in French and English.

***Fh. 421.—Contemporary French Civilization.** 2 hours. 2 credits. ATKIN. Prerequisite: Fh. 201-202.

The culture of present-day France, with emphasis upon art and letters.

***Fh. 427.—French-English Word Study.** 2 hours. 2 credits. ATKIN. Prerequisite: Fh. 201-202.

Differentiation of meaning in French and English words of similar spelling. Comparison of the meanings of such words should be useful to students and teachers of either language. Previous knowledge of Latin is not necessary though desirable.

***Fh. 428.—French-English Word Study.** 2 hours. 2 credits. ATKIN. Prerequisite: Fh. 201-202.

Further comparison of related words in French and English.

Fh. 430.—Individual Work. Variable credit. ATKIN, BRUNET. Prerequisite: Permission of the instructor.

An opportunity to study, for credit, certain phases of French literature, language, and civilization for which there are no special course offerings. Through this means a student can complete an undergraduate major or graduate minor. Fh. 430 may be elected for additional credit in subsequent sessions. Students will be helped to plan a definite program, and will meet the instructor for frequent conferences.

GRADUATE COURSES

Prerequisites: Twenty-four hours, or the equivalent, of undergraduate work in French. This must include a year course in French literature and one in French composition. The student should also have a reading knowledge of one foreign language other than French.

Fh. 505.—French Novel. 3 hours. 3 credits. ATKIN. The first half of the course Fh. 505-506.

Fh. 505-506: Evolution of the French novel from the seventeenth century to the present, with special emphasis on the nineteenth century; reading of representative novels; reports.

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*Not offered in 1945-46.

Fh. 506.—French Novel. 3 hours. 3 credits. ATKIN. The second half of the course Fh. 505-506.

Fh. 517.—Old French. 3 hours. 3 credits. BRUNET. The first half of the course Fh. 517-518.

Fh. 517-518: Study of the phonology, morphology, and syntax of Old French; reading of selected texts.

Fh. 518.—Old French. 3 hours. 3 credits. BRUNET. The second half of the course Fh. 517-518.

Fh. 530.—Individual Work. Credit arranged. ATKIN, BRUNET.

Fh. 530 makes it possible for a student to study, for credit, certain phases of French literature, language, and civilization for which there are no special course offerings. Through this means a student can complete a graduate major or graduate minor. Fh. 530 may be elected for additional credit in subsequent sessions. Students will be helped to plan a definite program, and will meet the instructor for frequent conferences.

GEOGRAPHY

Students in the University College who have completed C-1 and C-2 or the equivalent may elect Gpy. 203, Gpy. 204, and Gy. 203. These courses are required of all students intending to major in either Geography or Geology, and should, if possible, be elected in the sophomore year.

All Arts and Sciences departmental majors in Geography will include in addition to the above, Es. 381, Es. 382, Gpy. 312, Gpy. 323, Gpy. 330, and Gpy. 430, together with six additional credits in approved Geography or Geology courses numbered above 380.

The following courses in Economic Georgraphy are offered in the Department of Economics and Business Administration, and form a part of the Geography program: Es. 304, Es. 381, Es. 382, Es. 385, Bs. 440, Es. 486, Es. 487. For descriptions of these courses see Economics and Business Administration.

Gpy. 203.—Elements of World Georgraphy, I. 2 hours, and 2 hours laboratory. 3 credits. DIETTRICH.

The earth considered as the environment of man. This course emphasizes the geographic controls of human activities; it treats land forms, climate, soils, vegetation, animal life, climatic regions, and natural resources, and stresses the relation of their distribution to human affairs.

Gp. 204.—Elements of World Geography, II. 3 hours. 3 credits. DIETTRICH.

A continuation of Gpy. 203, with greater emphasis on the economic and political aspects of geography. Here are considered population problems, race, language, and religion, and especially the regional distribution of occupations and environmental adjustments that lead to the interdependence of peoples and nations, and the political influences of geographic factors.

***Gpy. 305.—Geography of Florida.** 3 hours. 3 credits. DIETTRICH.

A study of the geographic conditions and human adjustments in the major regions of Florida. The distribution of population, routes of communication, industries, resources, and strategic location in their geographical and historical aspects; explanation and interpretation of major phenomena such as weather and climate, geologic structure and land forms, surface and underground drainage, shoreline characteristics, natural vegetation, soil types, and animal life. Optional field trips.

***Gpy. 312.—Plant and Animal Geography.** 3 hours. 3 credits. HUBBELL.

The world distribution of the major types of plant and animal associations in relation to climate, topography and other factors, and its bearing upon geology, geography, and human affairs.

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*Not offered in 1945-46.

Gpy. 323.—Elementary Climatography. 3 hours. 3 credits. DIETTRICH.

The elements of climate, weather types and storms; classifications and distribution of climatic types; descriptive and explanatory analysis of the climatic characteristics of Florida with special attention to the influence of surface features and water bodies.

***Gpy. 330.—Maps, Charts and Graphs.** 2 hours, and 2 hours laboratory. 3 credits.

Elementary cartography and map interpretation; map projections; geographic and geologic symbols; methods of graphic presentation used in the different sciences, including block diagrams, structural diagrams, statistical maps, cartograms, slope, soil, erosion and land utilization maps; field mapping and field techniques essential to the preparation and use of geographic and geologic maps.

***Gpy. 405.—Advanced Regional Geography.** 3 hours. 3 credits. DIETTRICH.

An intensive study of geographic problems in selected regions. Designed for advanced students in geography and related subjects.

***Gpy. 424.—Advanced Regional Climatography.** 3 hours. 3 credits. DIETTRICH.

Intensive study of climatic conditions in selected regions.

***Gpy. 430.—Field Mapping and Advanced Cartography.** 3 hours. 3 credits.

Special training in map interpretation and preparation, including observation, measurement, and recording of geographic and geologic data.

GEOLOGY

Students in the University College who have completed C-1 and C-2 or the equivalent may elect Gpy. 203, Gpy. 204, and Gy. 203. These courses are required of all students intending to major in either Geography or Geology, and should, if possible, be elected in the sophomore year.

All Arts and Sciences departmental majors in Geology will include, in addition to the above, Gy. 204, Gy. 308, Gy. 321, Gy. 401, and Gpy. 430, together with nine additional credits in approved Geology or Geography courses unmbered above 380.

Gy. 203.—Elements of Physical Geology. 2 hours, and 2 hours laboratory. 3 credits. HUBBELL.

An introduction to earth science, with special application to Florida. A study of minerals and rocks and their formation, the operation of geological processes, land forms and their interpretation, and the applications of geological knowledge to human affairs, especially in reference to natural resources, engineering, and agriculture.

Gy. 204.—Elements of Historical Geology. 2 hours, and 2 hours laboratory. 3 credits. HUBBELL. Prerequisite: Gy. 203.

The history of the earth and its inhabitants. Starting with the origin of the earth, the formation of the most ancient rocks, and the first appearance of living things, this course traces the major physical events and the evolutionary changes in the animal and plant worlds down to the present, and furnishes an explanation of the present distribution of surface features, economic resources, and life.

***Gy. 307.—Rocks of the Atlantic and Gulf Coastal Plain.** 2 hours, and 2 hours laboratory. 3 credits. HUBBELL.

An introductory study of the origin, distribution, characteristics and properties of the sedimentary rocks of the Coastal Plain, of their economic uses and their relation to human problems.

Gy. 308.—Elementary Mineralogy and Petrology. 2 hours, and 2 hours laboratory. 3 credits. HUBBELL.

A study of the characteristics and identification of important minerals and rocks, by methods not involving the use of the microscope.

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*Not offered in 1945-46.

***Gy. 321.—Elementary Paleontology.** 2 hours, and 2 hours laboratory. 3 credits. Prerequisite or corequisite: C-6 or the equivalent.

The characteristics and identification of important groups of invertebrate fossils and the use of fossils in the identification of rocks, with special reference to the stratigraphy of the Coastal Plain.

***Gy. 401.—Physiography of North America.** 2 hours, and 2 hours laboratory. 3 credits. HUBBELL.

An analysis and interpretation of the evolution of present-day surface features and the principles for regional classification of the land areas of the earth. A detailed study of the physiographic regions of North America and their significance in the study of geology and geography.

***Gy. 402.—The Geology and Mineral Resources of Florida.** 2 hours, and 2 hours laboratory. 3 credits. STAFF.

A detailed study of the geological history, stratigraphy and mineral resources of the state.

***Gy. 415.—Advanced Physical Geology.** 3 hours. 3 credits. HUBBELL.

Advanced study of the physical nature of the earth and processes affecting the earth's surface.

***Gy. 416.—Advanced Historical Geology.** 3 hours. 3 credits. HUBBELL.

Advanced study of the origin and history of the earth and the development of plant and animal life during the geologic past.

***Gy. 420.—Advanced Invertebrate Paleontology.** 3 hours. 3 credits.

Laboratory and lectures on important problems in Atlantic and Gulf Coast paleontology together with individual problems.

***Gy. 509.—Shoreline and Marine Physiography.** 2 hours, and 2 hours laboratory; Saturday field trips to be arranged. 3 credits. HUBBELL.

An advanced treatment of shore processes and shoreline development, including beach formation and erosion, the submarine topography and currents of the continental shelf, and the bearing of these and related factors on human activities.

***Gy. 510.—The Surface and Underground Waters of Florida.** 2 hours, and 2 hours laboratory; Saturday field trips to be arranged. 3 credits. STAFF.

A study of precipitation, run-off, surface and sub-surface erosion and the effects upon the composition of water, in a region of low relief and prevailing soluble rocks. Of importance to students in the fields of geology, geography, engineering, soils and public health.

GERMAN

IMPORTANT: With the exception of Gn. 33-34 and Gn. 201-202, all the courses in German may be taken either semester for credit. In special instances Gn. 202 may, with permission of the instructor, be taken even though the student has not had Gn. 201. In all other courses the first semester is not a prerequisite for the second semester.

Gn. 33.—First-Year German. 3 hours. 3 credits. JONES, HAUPTMANN. The first half of the course Gn. 33-34. Open to those students who have had no previous work in German.

Gn. 33-34: A beginning course basic for further study. The objectives are the ability to read easy German and to understand the spoken language.

Gn. 34.—First-Year German. 3 hours. 3 credits. JONES, HAUPTMANN. The second half of the course Gn. 33-34.

Gn. 35.—First-Year German. 6 hours. 6 credits. JONES, HAUPTMANN. The entire first year of German 33-34 offered in one semester as an intensive course. Open to those students who have had no previous work in German.

A beginning course basic for further study. The objectives are the ability to read easy German and to understand the spoken language.

Gn. 201.—Second-Year German. 3 hours. 3 credits. JONES, HAUPTMANN. The first half of the course Gn. 201-202. Prerequisites: Gn. 33-34 or equivalent.

Gn. 201-202: Reading of modern stories, and dramas; practice in conversation.

Gn. 202.—Second-Year German. 3 hours. 3 credits. JONES, HAUPTMANN. The second half of the course Gn. 201-202.

Gn. 205.—Second-Year German. 6 hours. 6 credits. JONES, HAUPTMANN. The entire second year of German offered in one semester as an intensive course. Prerequisite: Gn. 33-34 or equivalent.

Reading of prose of moderate difficulty; training in composition; conversation practice.

Gn. 303.—Masterpiece of German Literature. 3 hours. 3 credits. JONES. Prerequisite: Gn. 201-202 or permission of instructor.

A survey of German literature from the ninth century to the end of the eighteenth.

Gn. 304.—Masterpieces of German Literature. 3 hours. 3 credits. JONES. Prerequisite: Gn. 201-202 or permission of instructor.

A survey of German literature from the last decade of the eighteenth century to the end of the nineteenth century.

Gn. 313.—Conversation and Composition. 3 hours. 3 credits. JONES. Prerequisite: Gn. 201-202 or permission of the instructor.

Training and practice in oral and written composition.

Gn. 314.—Conversation and Composition. 3 hours. 3 credits. JONES. Prerequisite: Gn. 313 or permission of the instructor. Second half of the course Gn. 313.

Gn. 325.—Scientific German. 3 hours. 3 credits. HAUPTMANN. Prerequisite: Gn. 201-202 or permission of instructor.

The reading of representative selections in Chemistry, Biology, Physics and other fields. Designed to provide the student with an adequate tool for research involving German publications.

Gn. 326.—Scientific German. 3 hours. 3 credits. HAUPTMANN. Prerequisite: Gn. 201-202 or permission of instructor.

Advanced readings in student's chosen science. Designed to provide orientation in important German publications concerning student's own field.

***Gn. 401.—German Writers in Translation.** 3 hours. 3 credits. JONES. *No knowledge of the German language is required;* no language credit is allowed for the course.

A study of the German Classical period, with emphasis upon the writings of Lessing, Goethe, and Schiller (in translation).

***Gn. 402.—German Writers in Translation.** 3 hours. 3 credits. JONES. *No knowledge of the German language is required;* no language credit is allowed for the course.

Intensive study of Lessing, Goethe, and Schiller.

***Gn. 403.—The German Classical Period.** 3 hours. 3 credits. JONES. Prerequisite: Gn. 303-304 or permission of the instructor.

Designed to afford an opportunity for a detailed study of the works of the Classical authors (in the original), together with the cultural background of the period.

***Gn. 404.—The German Classical Period.** 3 hours. 3 credits. JONES. Prerequisite: Gn. 303-304 or permission of the instructor.

Study (in the original) of Lessing, Goethe, and Schiller.

Gn. 430.—Individual Work. Variable credit. HAUPTMANN, JONES.

Gn. 430 makes it possible for a student to study, for credit, certain phases of German literature, language, and civilization for which there are no special course offerings. Gn. 430 may be elected for additional credit in subsequent sessions. Students will be helped to plan a definite program, and will meet the instructor for frequent conferences.

*Reading Course. 4 hours. 0 credits. HAUPTMANN. Open to graduate students, faculty members and seniors who are planning to do graduate work.

A special course for beginners who are primarily interested in meeting the reading requirements for advanced degrees.

GRADUATE COURSES

Prerequisite: Twenty-four hours, or equivalent, of undergraduate work in German.

Gn. 505.—German Prose Fiction in the Sixteenth, Seventeenth and Eighteenth Centuries. 3 hours. 3 credits. JONES.

The development of the German *Roman* and related types of prose fiction such as the *Novelle* and the *Erzaehlung* from the sixteenth century to the romantic period.

Gn. 506.—German Prose Fiction in the Nineteenth and Twentieth Centuries. 3 hours. 3 credits. JONES.

Gn. 509.—Middle High German. 3 hours. 3 credits. JONES.

Readings in the original of representative selections from the lyric and epic of the "Mittelhochdeutsche Bluetezeit". Lectures on the cultural and literary background of the period. Not a linguistic course. Text: Senn, *An Introduction to Middle High German.*

Gn. 510.—Middle High German. 3 hours. 3 credits. JONES.

Texts: Jantzen, *Dichtungen aus mittelhochdeutscher Fruehzeit, Parzival, Hartmann von Aue und Gottfried von Strassburg.* (Goeschen 137, 921 and 22.)

Gn. 517.—Introduction to Germanic Philology. 3 hours. 3 credits. JONES.

Matthew, Mark, Luke and John in the Biblical translation of Ulfulas—the phonology and morphology of Gothic in relation to other Indo-European languages—a brief survey of the sound laws involved in the development of English and the low German dialects from primitive Germanic. Intended to serve as a general introduction to the subject for students from other departments as well as for those primarily interested in Germanic linguistics. Texts: Wright, *A Grammar of the Gothic Language.* Priebsch and Collinson, *The German Language.*

Gn. 518.—Introduction to Germanic Philology. 3 hours. 3 credits. JONES.

The reading of Old High German and Middle High German texts together with much material generally included in courses on the history of the German language—the second sound shift—the high German dialects—the development of the "Schriftsprache"—loan words and loan translations. Texts: Braune, *Althochdeutsche Grammatik* and *Althochdeutsches Lesebuch.* Wright, *A Middle High German Primer.*

Gn. 530.—Individual Work. Variable credit.

Readings and reports in fields chosen by the individual student. Mainly designed for graduate students desiring to gain special information on certain genres, movements or authors. The course may be repeated without duplication of credit.

GREEK

Gk. 33.—First-Year Greek. 3 hours. 3 credits. BRUNET. The first half of the course Gk. 33-34.

Gk. 33-34: A beginning course basic for further study, designed to introduce the student to the study of Greek and to develop a moderate reading ability.

Gk. 34.—First-Year Greek. 3 hours. 3 credits. BRUNET. The second half of the course Gk. 33-34.

Gk. 201.—Second Year Greek. 3 hours. 3 credits. BRUNET.

Continuation of Xenophon's Anabasis. Grammar study.

Gk. 202.—Second Year Greek. 3 hours. 3 credits. BRUNET.

Translation of Plato's Apology and Crito. Grammar study.

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*Not offered in 1945-46.

HEALTH AND PHYSICAL EDUCATION

HPl. 131.—Theory and Practice. 2 hours, and 2 hours laboratory. 3 credits. LIEB and STAFF.

Fundamentals of football and technique of each position for the line and backfield; elementary course dealing with the fundamentals only of each position.

HPl. 132.—Theory and Practice. 2 hours, and 2 hours laboratory. 3 credits. LIEB and STAFF.

Fundamentals of training and techniques in track and field events; development of individual skills ; elementary course covering the individual events only.

Note: These two courses will be given in the freshman year and will overlap; hence, the final grade will depend upon a full year's work.

HPl. 231.—Theory and Practice. 2 hours, and 2 hours laboratory. 3 credits. LIEB and STAFF.

Elementary course covering fundamentals of basketball, individual skills and play of each position.

HPl. 232.—Theory and Practice. 2 hours, and 2 hours laboratory. 3 credits. LIEB and STAFF.

Fundamentals of baseball and swimming. Instruction and training in fundamentals, the play of each position in baseball, and various events in swimming.

HPl. 361.—Teaching Physical Education in the Elementary School. 3 hours. 3 credits. SALT. The first half of the course HPl. 361-362.

HPl. 361-362: Methods and Materials. The program of physical education activities for the elementary school involving directed play, small group play, large group play, rhythms, sport units; together with appropriate procedures and methods for conducting such a program. (Note: Must be taken concurrently with En. 393-394.)

***HPl. 362.—Teaching Physical Education in the Elementary School.** 3 hours. 3 credits. SALT. The second half of the course HPl. 361-362.

***HPl. 363.—Teaching Physical Education in the Secondary School.** 3 hours. 3 credits. SALT. The first half of the course HPl. 363-364.

HPl. 363-364: Methods and Materials. The program of physical education activities for the secondary school involving team games, rhythms, gymnastics activities, individual and dual sports; together with appropriate procedures and methods for conducting such a program.

HPl. 364.—Teaching Physical Education in the Secondary School. 3 hours. 3 credits. SALT. The second half of the course HPl. 363-364.

HPl. 381.—Advanced Football Coaching. 2 hours, and 2 hours laboratory. 3 credits. LIEB and STAFF. Prerequisite HPl. 131.

The course is designed to give instruction in coaching a complete team in offensive and defensive plays.

HPl. 382.—Advanced Track Coaching. 2 hours, and 2 hours laboratory. 2 credits. LIEB and STAFF. Prerequisite: HPl. 132.

Training in the developing of a track team, management of track meets, and promotion of track.

HPl. 383.—Games, Minor Sports and Gymnastics. 2 hours, and 2 hours laboratory. 3 credits. LIEB and STAFF.

Course of instruction covering minor sports, games other than varsity sports, and gymnastics.

HPl. 384.—Games, Minor Sports and Gymnastics. 2 hours, and 2 hours laboratory. 3 credits. LIEB and STAFF.

A continuation of instruction in minor sports, games other than varsity sports, and gymnastics.

HPl. 385.—History and Principles of Physical Education. 2 hours. 2 credits. SALT.

History of the development of various systems of physical education. Course stresses the development of methods as a result of a response to social needs.

HPl. 386.—Organization and Administration of Physical Education. 2 hours. 2 credits. SALT.

A practical course covering the educational aspects of organization and administration in high school. Special attention is given to the problems of construction and maintenance of the physical education plant and equipment and to the organization and administration of the required physical education, intramural and interschool phases of the program.

HPl. 387.—Health Education. Offered only in the second semester. 3 hours. 3 credits. SALT.

A consideration of the principles underlying health education, together with the organization and administration of such a program; the role of the teacher in health instruction, who shall teach health, the organization of materials for instructional purpose, criteria for the evaluation of health materials and methods, the role of local, state and national non-official organizations in health teaching programs.

HPl. 462.—Community Recreation. 2 hours. 2 credits. SALT.

Study is made of such problems as providing facilities and equipment, setting up the program, budgeting and financing, selecting and supervising the staff.

HPl. 481.—Advanced Basketball Coaching. 2 hours, with demonstrations on the floor. 2 credits. LIEB and STAFF. Prerequisite: HPl. 231.

The course is designed to instruct individuals in coaching a basketball team with the work based entirely on team plays on both offense and defense.

HPl. 482.—Advanced Baseball Coaching. 2 hours, with demonstrations on field. 2 credits. LIEB and STAFF. Prerequisite: HPl. 232.

The course is designed to train men to coach baseball on a team basis.

HPl. 484.—Testes and Measurements in Physical Education. 2 hours. 2 credits. SALT.

Lectures, discussion, reports and laboratory practices in the use of the simpler and more important tests and measurements of health, physical fitness, motor ability, and skills. The place and possibilities of measurement in physical education.

HPl. 485.—Applied Anatomy, Physiology and Kinesiology. 3 hours. 3 credits. SALT.

Human embryology, the cell, tissues, basis of essential facts concerning the structure and the functions of the skeletal, muscular, nervous, respiratory, digestive, reproductive, endocrine, excretory and circulatory systems. Study of body movements, muscle action, and joint mechanics in relation to physical education activities.

HPl. 486.—Personal and Community Hygiene. 3 hours. 3 credits. SALT.

Hygiene as a means for the improvement of living; the meaning of health in terms of life values; the biologic approach to the study of health; the place of intelligent control in modern civilization; ways for improvement of health and prevention of disease as applied to the individual and the community.

HPl. 487.—Corrective Physical Education. 2 hours, with laboratory demonstrations. 2 credits. LIEB and STAFF.

The course is designed to train men to teach corrective exercises both for rehabilitation and posture adjustments.

HPl. 488.—Conditioning of Athletes and Care of Injuries. 2 hours, with practical demonstrations. 2 credits. LIEB and STAFF.

The course is designed to train men in conditioning athletes for the various sports together with a practical course in first aid and the care of injuries in an athletic program.

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*Not offered in 1945-46.

GRADUATE COURSES

HPl. 531.—Guided Professional Development in Health and Physical Education. 3 hours. 3 credits. SALT. The first half of the course HPl. 531-532.

HPl. 531-532 is designed to give teachers, supervisors, and administrators a broad understanding of the field of health and physical education. At the beginning of the course the student and instructor will outline a program of professional development in keeping with the needs and interests of the student. Credit will depend upon evidence of professional growth on the part of the student in accord with his program. This will be tested in any manner which the instructor deems valid.

HPl. 532.—Guided Professional Development in Health and Physical Education. 3 hours. 3 credits. SALT. The second half of the course HPl. 531-532.

HPl. 533.—Problems of Physical Education. 3 hours. 3 credits. SALT. The first half of the course HPl. 533-534.

HPl. 533-534 is designed to give the student an understanding of the contemporary problems in physical education. It forms the basis for the organization of research projects together with an analysis of the techniques used in problem solving.

HPl. 534.—Problems of Physical Education. 3 hours. 3 credits. SALT. The second half of the course HPl. 533-534.

HISTORY

In all the courses offered in this department political, economic, social, religious and cultural aspects are given consideration. Prerequisites: C-1 or Hy. 313-314 (formerly Hy. 101-102) or equivalent.

Hy. 241.—History of the Modern World. Offered each semester. 4 hours. 4 credits. LEAKE. Prerequisites: C-1. Designed for University College students. Prerequisite to advanced courses in History for students entering from the University College. (Formerly CHy. 13.)

The historical background of present day civilization is considered insofar as that background has been developed in the fabric of the historical movements since 1815. The political, economic, social, religious, artistic, and cultural aspects of the nineteenth and twentieth centuries are studied.

Hy. 251.—Florida History. 3 hours. 3 credits. LEAKE.

Designed to familiarize the student with the discovery, exploration, settlement and development of that area now comprised in the present State of Florida. Special emphasis will be given the period since Reconstruction.

Hy. 301.—American History, 1492-1776. 3 hours. 3 credits. LEAKE. The first half of the course Hy. 301-302.

The Colonial Period up to 1776.

Hy. 302.—American History, 1776-1830. 3 hours. 3 credits. LEAKE. The second half of the course Hy. 301-302.

The early Constitutional Period.

Hy. 303.—American History, 1830-1876. 3 hours. 3 credits. LEAKE. The first half of the course Hy. 303-304.

The Civil War and Reconstruction.

Hy. 304.—American History, 1876-1942. 3 hours. 3 credits. LEAKE. The second half of the course Hy. 303-304.

From Reconstruction to the present.

Hy. 305.—English History to 1485. 3 hours. 3 credits. PAYNE. The first half of the course Hy. 305-306.

From early times to the end of the War of the Roses, 1485.

Hy. 306.—English History, 1485 to 1688. 3 hours. 3 credits. PAYNE. The second half of the course Hy. 305-306.

From 1485 to the "Glorious Revolution", 1688.

Hy. 307.—The Renaissance and Reformation. 3 hours. 3 credits. LEAKE. The first half of the course Hy. 307-308.

The Renaissance.

Hy. 308.—The Renaissance and Reformation. 3 hours. 3 credits. LEAKE. The second half of the course Hy. 307-308.

The Protestant Revolution and the Catholic Reformation.

Hy. 309.—The French Revolution and the Napoleonic Era. 3 hours. 3 credits. LEAKE. The first half of the course Hy. 309-310.

The causes and course of the French Revolution.

Hy. 310.—The French Revolution and the Napoleonic Era. 3 hours. 3 credits. LEAKE. The second half of the course Hy. 309-310.

The Napoleonic Era.

Hy. 311.—English History, 1688 to 1815. 3 hours. 3 credits. PAYNE. The first half of the course Hy. 311-312.

From the Revolution of 1688 to the close of the Napoleonic Period.

Hy. 312.—English History, 1815-1942. 3 hours. 3 credits. PAYNE. The second half of the course Hy. 311-312.

From the Congress of Vienna to the present.

Hy. 313.—Europe During the Middle Ages. 3 hours. 3 credits. GLUNT. The first half of the course Hy. 313-314.

Hy. 313-314: The history of Western Europe from 476 A.D. to the Renaissance and Reformation. This course is a prerequisite for other history courses for students who do not enter the Upper Division from the General College.

Hy. 314.—Europe During the Middle Ages. 3 hours. 3 credits. GLUNT. The second half of the course Hy. 313-314.

Hy. 315.—Latin American History to 1850. 3 hours. 3 credits. GLUNT. The first half of the course Hy. 315-316.

Hy. 315-316: First semester work covers the discovery, settlement, and early development of South and Central America. Second semester work covers the discovery, settlement, and early development of Latin America to 1850.

Hy. 316.—Latin American History to 1850. 3 hours. 3 credits. GLUNT. The second half of the course Hy. 315-316.

Hy. 317.—Latin American History, 1850-1900. 3 hours. 3 credits. GLUNT. The first half of the course Hy. 317-318.

Hy. 318.—Latin American History, 1900 to 1942. 3 hours. 3 credits. GLUNT. The second half of the course Hy. 317-318.

Hy. 326.—United States Naval History. 3 hours. 3 credits. PATRICK.

The beginnings and development of the United States Navy.

Hy. 331.—Survey of American History. 3 hours. 3 credits. LEAKE. The first half of the course Hy. 331-332.

Hy. 331-332: A general survey course on the development of the United States, designed for students in Public Administration. Not open to other students unless they have completed C-1 and CHy. 13 or Hy. 313-314.

Hy. 332.—Survey of American History. 3 hours. 3 credits. LEAKE. The second half of the course Hy. 331-332.

Hy. 401.—Ancient Civilizations. 3 hours. 3 credits. PAYNE. The first half of the course Hy. 401-402.

Hy. 401-402: Egyptian, Assyrian, Babylonian, Persian, Semitic, Hellenic, and Roman peoples.

Hy. 402.—Ancient Civilizations. 3 hours. 3 credits. PAYNE. The second half of the course Hy. 401-402.

Hy. 403.—History of Europe, 1648 to 1714. 3 hours. 3 credits. PAYNE. The first half of the course Hy. 403-404.

Hy. 403-404: The history of Europe from the Treaty of Westphalia to the French Revolution.

Hy. 404.—History of Europe, 1714-1789. 3 hours. 3 credits. PAYNE. The second half of the course Hy. 403-404.

GRADUATE COURSES

Prerequisites: An undergraduate major of twenty-four semester hours or equivalent. It is very desirable that the student should begin his graduate work with a reading knowledge of one foreign language, preferably French or German, especially if he intends to go on to the work for the Ph.D. degree.

Graduate students admitted to undergraduate courses are required to do additional work in order to receive graduate credit.

Hy. 501.—American History, 1492-1776. 3 hours. 3 credits. LEAKE. The first half of the course Hy. 501-502.

Hy. 502.—American History, 1776-1830. 3 hours. 3 credits. LEAKE. The second half of the course Hy. 501-502.

Hy. 503.—American History, 1830-1876. 3 hours. 3 credits. LEAKE. The first half of the course Hy. 503-504.

Hy. 504.—American History, 1876 to the Present. 3 hours. 3 credits. LEAKE. The second half of the course Hy. 503-504.

Hy. 505.—English History to 1485. 3 hours. 3 credits. PAYNE. The first half of the course Hy. 505-506.

Hy. 506.—English History from 1485-1688. 3 hours. 3 credits. PAYNE. The second half of the course Hy. 505-506.

Hy. 507.—Renaissance and Reformation. 3 hours. 3 credits. LEAKE. The first half of the course Hy. 507-508.

Hy. 508.—Renaissance and Reformation. 3 hours. 3 credits. LEAKE. The second half of the course Hy. 507-508.

Hy. 509.—Seminar in American History. 3 credits. LEAKE. The first half of the course Hy. 509-510.

Hy. 510.—Seminar in American History. 3 credits. LEAKE. The second half of the course Hy. 509-510.

Hy. 511.—English History, 1688-1815. 3 hours. 3 credits. PAYNE. The first half of the course Hy. 511-512.

Hy. 512.—English History, 1815-1941. 3 hours. 3 credits. PAYNE. The second half of the course Hy. 511-512.

Hy. 515.—Latin American History, to 1850. 3 hours. 3 credits. GLUNT. The first half of the course Hy. 515-516.

Hy. 516.—Latin American History, to 1850. 3 hours. 3 credits. GLUNT. The second half of the course Hy. 515-516.

Hy. 517.—Latin American History, 1850-1900. 3 hours. 3 credits. GLUNT. The first half of the course Hy. 517-518.

Hy. 518.—Latin American History, 1900-1941. 3 hours. 3 credits. GLUNT. The second half of the course Hy. 517-518.

Hy. 521.—Ancient Civilizations. 3 hours. 3 credits. PAYNE. The first half of the course Hy. 521-522.

Hy. 522.—Ancient Civilizations. 3 hours. 3 credits. PAYNE. The second half of the course Hy. 521-522.

Hy. 523.—History of Europe, 1648-1714. 3 hours. 3 credits. PAYNE. The first half of the course Hy. 523-524.

Hy. 524.—History of Europe, 1714-1789. 3 hours. 3 credits. PAYNE. The second half of the course Hy. 523-524.

HORTICULTURE

He. 201.—Principles of Horticulture. 2 hours, and 2 hours laboratory. 3 credits. WOLFE.

The principles underlying home and commercial production of fruits, vegetables and flowers. A course designed especially for students not expecting to major in horticulture and not counting for a major.

He. 310.—Plant Pruning. 2 hours, and 2 hours laboratory. 3 credits. WATKINS.

Principles and practices in the pruning of trees and shrubs and in the treatment of wounds and cavities.

He. 312.—Vegetable Gardening. 2 hours, and 2 hours laboratory. 3 credits. ABBOTT.

Principles and practice of vegetable growing, with special attention to the home garden. A brief general course or an introduction to further work in olericulture.

He. 314.—Principles of Fruit Production. 3 hours. 3 credits. ABBOTT.

The principles underlying fruit production, with special reference to such factors as water relations, nutrition, temperature, fruit setting, and geographic influences.

He. 315.—Citrus Culture. 2 hours, and 2 hours laboratory. 3 credits. ABBOTT. The first half of the course He. 315-316. May be taken for credit without He. 316.

He. 315-316: A thorough study of all phases of the growing of citrus fruits, including propagation, selection of site, planting, grove operations, harvesting and varieties. A three-day trip is required each semester.

He. 316.—Citrus Culture. 2 hours, and 2 hours laboratory. 3 credits. ABBOTT. The second half of the course He. 315-316.

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*Not offered in 1945-46.

He. 317.—Plant Propagation. 2 hours, and 2 hours laboratory. 3 credits. ABBOTT.

Principles and practices in the propagation of orchard and garden crops, and the physiological and economic factors related to them.

He. 412.—Deciduous Fruits. 2 hours, and 2 hours laboratory. 3 credits. WOLFE.

A study of the culture of peaches, pears, persimmons, grapes and other deciduous fruits including the strawberry as grown in Florida.

He. 423.—Major Subtropical Fruits. 3 hours. 3 credits. WOLFE.

A study of the propagation, culture and commercial production of the avocado and mango. A three-day field trip will be made.

He. 424.—Minor Subtropical and Tropical Fruits. 3 hours. 3 credits. WOLFE.

Studies of the culture and relationships of such fruits as the guavas, carissa, sapodilla, star-apple, papaya, lychee, tamarind, etc. A three-day field trip will be made.

He. 425.—Commercial Truck Crops. 2 hours, and 2 hours laboratory. 3 credits. ABBOTT. Prerequisite: He. 312.

The principles and practices in the commercial production of the important truck crops of Florida, including beans, celery, cabbage, potato, tomato and watermelon. A three-day trip will be required.

He. 426.—Systematic Olericulture. 2 hours, and 2 hours laboratory. 3 credits. ABBOTT.

The origin, history, types, classification, nomenclature and adaptations of vegetables.

He. 427.—Elementary Floriculture. 2 hours, and 2 hours laboratory. 3 credits. WATKINS.

The principles of flower culture, with special emphasis on the growing of annuals and perennials for the home garden.

***He. 428.—Commercial Floriculture.** 2 hours, and 2 hours laboratory. 3 credits. WATKINS.

The propagation and handling of commercial florists crops and the management of greenhouses.

He. 429.—Ornamental Horticulture. 1 hour, and 4 hours laboratory. 3 credits. WATKINS.

Plant materials suitable for use in ornamental horticulture with special application to the beautification of homes and schools in Florida.

He. 430.—Advanced Ornamental Horticulture. 1 hour, and 4 hours laboratory. 3 credits. WATKINS.

Plant materials for use in landscape work, with more emphasis given to use in commercial landscaping and to tropical materials.

GRADUATE COURSES

Prerequisites: Twenty hours of satisfactory work in Horticulture and six hours of satisfactory work in Botany.

He. 503.—Horticulture Seminar. 1 hour. 1 credit. WOLFE.

***He. 514.—Advanced Citriculture.** 3 hours. 3 credits. ABBOTT.

Advanced course emphasizing the problems offered by varying sites, soils, climates, stocks and varieties.

***He. 515.—Advanced Olericulture.** 3 hours. 3 credits. WOLFE.

A study of the literature in plant physiology, morphology, and genetics as related to the production of truck crops.

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*Not offered in 1945-46.

He. 518.—Advanced Floriculture. 3 hours. 3 credits. WATKINS.

A critical survey of the literature and problems of floriculture and ornamental horticulture.

He. 570.—Research in Horticulture. 1 to 6 hours. 1 to 6 credits. WOLFE, ABBOTT, WATKINS, JAMISON.

INDUSTRIAL ARTS EDUCATION

In. 111.—Mechanical Drawing. 1 hour, and 5 hours laboratory. 2 credits. STRICKLAND.

Freehand sketching, lettering, orthographic projection, geometric construction, working drawing and blue printing, care and use of instruments.

In. 112.—Mechanical Drawing. 1 hour, and 5 hours laboratory. 2 credits. STRICKLAND.

Perspective rendering, tracings and blue prints for a small building; different types of letters, machine sketching, and conventions. Suggestions and plans as to the most effective way of teaching a course of this type.

In. 211.—General Shop. I hour, and 5 hours laboratory. 2 credits. STRICKLAND.

Practice in use of hand tools commonly found in school shops; types of construction, design, woodfinishing; block-printing. Analysis of logical teaching units in projects and problems in the various phases of industrial arts.

In. 212.—General Shop. 1 hour, and 5 hours laboratory. 2 credits. STRICKLAND.

Use of hand tools and power machines, with special emphasis on the speed lathe; use, parts and care of machines; shop equipment and construction. In addition to the development of manipulative skills, special emphasis is given to selecting projects, and writing the various types of instruction sheets.

In. 301.—Sheet Metal Drafting. 1 hour, and 5 hours laboratory. 3 credits. STRICKLAND.

How to make and how to read sheet metal and other surface development drawings.

In. 302.—General Shop. 1 hour, and 5 hours laboratory. Offered only in the first semester. 3 credits. STRICKLAND.

Units in design and construction of ceramics and in addition, several craft activities presented.

In. 305.—Design and Construction. 1 hour, and 5 hours laboratory. Offered only in the second semester. 3 credits. STRICKLAND.

Advanced problems in design and construction taken from some area of work in the general shop in selected advanced areas in which the student desires major emphasis.

In. 306.—General Metal Shop. 1 hour, and 5 hours laboratory. 3 credits. STRICKLAND.

Layout and construction in sheet metal. Scope of sheet metal, various methods of construction, shop arrangements and equipment. Study made of metals, materials and processes essential to oxyacetylene and arc welding; also forge and heat treating.

In. 401.—Architectural Drawing. 6 hours lecture-laboratory. 3 credits. Prerequisite: In. 111-112. STRICKLAND.

Designed for industrial arts teachers. Study made of building materials, sources and prices; landscaping as to orientation; plans, elevations, sections, details, conventions; types and styles of domestic architecture, and a review of the history of architecture.

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*Not offered in 1945-46.

In. 404.—Farm Motors. Identical with Ag. 302. 4 hours lecture-laboratory. 3 credits. ROGERS, F.

A general understanding of the various types of gasoline motors. Lecture-laboratory work on the theories and practical phases of engines; fuel systems, carburation; ignition; starting and generating systems.

In. 411.—General Machine Shop and Metal Work. 1 hour, and 5 hours laboratory. 3 credits. The first half of the course In. 411-412. STRICKLAND.

In. 411-412: Recommended for properly qualified students in the College of Education. It consists of classroom study and laboratory practice in pattern work, foundry, and general machine shop operations.

In. 412.—General Machine Shop and Metal Work. 1 hour, and 5 hours laboratory. 3 credits. The second half of the course In. 411-412. STRICKLAND.

INDUSTRIAL ENGINEERING

Ig. 365.—Engineering Mechanics—Statics. 3 hours. 3 credits. YEATON, ESHLEMAN, BEASLEY. Prerequisites: Ps. 205, Ms. 353, Ml. 182.

Principles of statics; resolution and equilibrium of concurrent forces; numerical and graphical solution of trusses and hinged frames; couples; centers of gravity; forces in space; and moments of inertia. Singer, *Engineering Mechanics.*

Ig. 366.—Engineering Mechanics—Dynamics. 3 hours. 3 credits. ESHLEMAN. BEASLEY. Prerequisite: Ig. 365.

Principles of dynamics; rectilinear, curvilinear, and harmonic motions; momentum and impulse; work and energy; force, mass, and acceleration; projectiles; simple, torsional, and compound pendulums; balancing of rigid bodies; and relative motion. Singer, *Engineering Mechanics.*

Ig. 367.—Strength of Materials. 3 hours. 3 credits. ESHLEMAN, YEATON. Prerequisite: Ig. 365.

Tension, compression, shear, stress and strain; combined stresses; riveted joints for pressure vessels and structural work; torsion; bending moments; stresses and deflection of simple, cantilever, and continuous beams; concrete beams; curved beams and hooks; eccentric loading; columns; and elastic strain energy. Boyd, *Strength of Materials.*

Ig. 370.—Job Evaluation. 2 hours. 2 credits. YEATON. Prerequisite: Upper Division registration.

Analysis of duties and responsibilities of various jobs and compare them from point of view of difficulty, responsibility, skill education, and working conditions. Determination of rates of compensation so that they will be in proper relation to each other according to the relative value of the job to industry. Benge, Burk, Hay, *Manual of Job Evaluation.*

Ig. 460.—Engineering Economic Analysis. 3 hours. 3 credits. YEATON. Prerequisite: Senior classification.

Projects selected from the general fields of engineering are solved by the student. Attention is given to both the technical and the economic solutions. Each project will, in general, be studied from the economic, intangible, and financial analyses points of view. The importance of alternatives; the questions: "Will it pay?" and "Can it be financed?" are emphasized. Bullinger, *Engineering Economic Analysis.*

Ig. 463.—Specifications, Engineering Relations and Industrial Safety. 3 hours. 3 credits. ESHLEMAN. Prerequisite: Senior classification.

Specifications for materials and construction of engineering projects; advertising and letting contracts; agreements and contractual relations. Organization of safety work in industry; accident causes and legal responsibility of employer and employee. Mead, *Contracts, Specifications and Engineering Relations.* Pamphlets, Blake. *Industrial Safety.*

Ig. 469.—Plant Location and Layout. 3 hours, and 3 hours laboratory. 4 credits. ESHLEMAN. The first half of the course Ig. 469-470. Prerequisite: Senior classification.

Ig. 469-470: A study of the principles of location, layout, industrial building design, operation and control of industrial plants and processes; involving waste elimination and production control. Knowles & Thomson, *Industrial Management.*

Ig. 470.—Plant Location and Layout. 3 hours, and 3 hours laboratory. 4 credits. ESHLEMAN, BEASLEY. The second half of the course Ig. 469-470.

Ig. 472.—Human Engineering. Offered each semester. 2 hours. 2 credits. YEATON. Prerequisite: Ig. 463.

Problems of production engineering and management. The human factors in industry. Tead, *Human Nature and Management.*

Ig. 477.—Motion and Time Study. 2 hours, and 3 hours laboratory. 3 credits. YEATON. Prerequisite: Senior classification.

Methods of simplifying work in industrial plants and business offices are studied and analyzed by the use of process charts, operation charts, motion picture films, and micro-motion analysis. Methods of taking time studies, rating operators, determining fatigue, personal and miscellaneous allowance, and the computing of elemental time units are studied. In the laboratory, projects from industry are taken, analyzed and improved. Motion pictures are made of these projects. Barnes, *Motion and Time Study.*

GRADUATE COURSES

Prerequisites: Thorough foundation work in Differential and Integral Calculus, Applied Mechanics, Thermodynamics, Plant Layout and Design, Human Engineering, Engineering Practice, and Business Administration, or equivalent foundation course work of about forty semester credits including experience in industry.

Ig. 561.—Advanced Shop Layout and Design. 3 credits. YEATON. The first half of the course Ig. 561-562. Prerequisites: Ig. 469-470.

Ig. 562.—Advanced Shop Layout and Design. 3 credits. YEATON. The second half of the course Ig. 561-562. Prerequisite: Ig. 561.

Ig. 563.—Management Training. 3 credits. YEATON. The first half of the course Ig. 563-564. Prerequisites: Ig. 472, Ig. 460.

Ig. 564.—Management Training. 3 credits. YEATON. The second half of the course Ig. 563-564. Prerequisite: Ig. 563.

JOURNALISM

Jm. 213.—Propaganda. 3 hours. 3 credits. EMIG.

A study of newspapers, magazines, the radio, and movies designed to develop an understanding of the forces that create and control public action. Analysis of the attitudinizing of people, the strategy of symbol-makers, and the techniques of propagandists in their use of idea-transmitting agencies and in their influence on war and peace.

Jm. 214.—Introduction to Journalism. 3 hours. 3 credits. EMIG.

A survey designed to acquaint the student with the requirements and opportunities for a career in such fields of journalism as publishing, reporting, political and financial writing, press associations, foreign correspondence, advertising, business publications, news movies, and radio writing.

Jm. 215.—History of Journalism. 3 hours. 3 credits. EMIG.

A study of the origin, development, and potentiality of journalism, and its media, print, radio, and picture, in relation to freedom in the United States and other nations, the South, and Florida. Evolution of editorial standards and methods with emphasis on the contributions of outstanding writers, discoverers, and inventors.

Jm. 216.—Principles of Journalism. 3 hours. 3 credits. LOWRY.
Principles and ethics underlying newspaper and magazine publishing and news reporting.

Jm. 301.—News Writing and Editing. 2 hours, and 6 hours laboratory. 4 credits. LOWRY. The first half of the course Jm. 301-302.
Writing and editing news of local, state, national, and international affairs. Actual reporting for newspapers.

Jm. 302.—News Writing and Editing. 2 hours, and 6 hours laboratory. 4 credits. LOWRY. The second half of the course Jm. 301-302.

Jm. 314.—Magazine Writing and Editing. 3 hours. 3 credits. LOWRY.
Preparation of special articles for publication in newspapers and magazines coordinated with study of magazine editing problems. Supervised marketing of articles produced in the course.

Jm. 317.—Mechanics of Publishing. 3 hours. 3 credits. LOWRY.
Instruction in printing materials and processes as background for understanding by the editorial worker of the conditions under which his copy and instructions will be carried through to the finished product.

Jm. 318.—Newspaper Management. 3 hours. 3 credits. LOWRY.
Newspaper organization and operation from the standpoint of the business and editorial supervision.

Jm. 403.—Newspaper and Radio Advertising. 3 hours. 3 credits. EMIG.
Procedure and practice of advertising; market surveys; advertising plans and campaigns; laying out, writing, and selling ads; copy appeals, space, time, typography; budgets and rates; relations with local and national advertisers.

Jm. 404.—Newspaper and Magazine Illustration. 2 hours. 2 credits. LOWRY.
Appeals on which newspaper and magazine editors rely in planning, selecting, editing, and making up illustrations.

Jm. 406.—Radio Writing. 2 hours. 2 credits. EMIG.
The technique of preparing and editing news and other material for use by radio.

Jm. 407.—Interpreting the News. 3 hours. 3 credits. EMIG.
Investigation of the human ecological factors that affect such idea-transmitting agencies as newspapers, magazines, books, radio, and film, and a study of the standards of evaluating public affairs, together with preparation of interpretations of events.

Jm. 408.—Public Opinion. 3 hours. 3 credits. EMIG.
A study of the force of public opinion in modern life; the psychological technique and strategy of directors of public opinion; attitude-measurement; reader-interest surveys; radio-audience and movie-audience measurement; market and consumer analysis; public opinion polls.

Jm. 409.—Law of the Press. 3 hours. 3 credits. LOWRY.
How to avoid legal difficulties with special attention to Florida statutory and common law.

Jm. 410.—World Communication System. 2 hours. 2 credits. EMIG.
A study of newspapers, magazines, radio, and news movies as they function on the broad stage of international affairs, and the conditions under which news is gathered and transmitted throughout the world.

Jm. 411.—Public Relations. 3 hours. 3 credits. EMIG.
A study of the relationships between journalistic media and the public, and the principles, methods, and means of influencing the public. Public relations programs will be prepared.

Jm. 412.—Contemporary Journalistic Thought. 3 hours. 3 credits. EMIG.
An investigation of the more significant contemporary problems with which the professional journalist must concern himself, and the solution of these problems.

GRADUATE COURSES

Jm. 503.—Special Studies in Newspaper Production. 3 hours. 3 credits. LOWRY. The first half of the course Jm. 503-504.

Jm. 504.—Special Studies in Newspaper Production. 3 hours. 3 credits. LOWRY. The second half of the course Jm. 503-504.

Jm. 505.—Special Studies in Public Opinion. 3 hours. 3 credits. EMIG. The first half of the course Jm. 505-506.

Jm. 506.—Special Studies in Public Opinion. 3 hours. 3 credits. EMIG. The second half of the course Jm. 505-506.

LATIN

Ln. 33.—First Year Latin. 3 hours. 3 credits. BRUNET. The first half of the course Ln. 33-34.

Ln. 33-34: A beginning course basic for further study, designed to introduce the student to the study of Latin and to develop a moderate reading ability.

Ln. 34.—First Year Latin. 3 hours. 3 credits. BRUNET. The second half of the course Ln. 33-34.

Ln. 201.—Second Year Latin. 3 hours. 3 credits. BRUNET. Prerequisite: One year college Latin or two years high school Latin, or equivalent. The first half of the course Ln. 201-202.

Ln. 201-202: Reading, interpretation and discussion of important Latin writings. The work will be adapted to the proficiency of the individual student.

Ln. 202.—Second Year Latin. 3 hours. 3 credits. BRUNET. The second half of the course Ln. 201-202.

LAW

Lw. 301.—Torts. 5 hours. 5 credits. TRUSLER.

History, definitions, and elements of torts; particular torts. *Burdick on Torts*, 4th Edition.

Lw. 302.—Equity Jurisprudence. 5 hours. 5 credits. TRUSLER.

Jurisdiction; principles of adjudication; fraud, accident, and mistake; remedies—injunctions, specific performance, interpleader, bills quia timet. Keigwin, *Cases in Equity Jurisprudence.*

Lw. 303.—Contracts. 3 hours. 3 credits. TE SELLE.

Formation; consideration; object; operation; assignments. Costigan, *Cases on Contracts*, 4th edition.

Lw. 304.—Contracts. 3 hours. 3 credits. TE SELLE. Prerequisite: Lw. 303.

Third party beneficiaries; joint obligations; interpretation of contract; rules relating to evidence and construction; discharge of contract. Costigan, *Cases on Contracts*, 4th edition.

Lw. 305.—Criminal Law and Procedure. 4 hours. 4 credits. PRIDGEN.

Sources of criminal law; nature and elements of crime; particular crimes. Jurisdiction: arrest; preliminary examination and bail; grand jury; arraignment, pleas, and motions; nolle prosequi and motions to quash; jeopardy; verdict, new trial; arrest of judgment; judgment, sentence, and execution. Mikell, *Cases on Criminal Law and Procedure*, 3rd edition.

Lw. 306.—Marriage and Divorce. 1 hour. 1 credit. DAY.

Marriage; nature of the relation; capacity of parties; annulment; divorce; alimony; effect of property rights; custody and support of children; agreements of separation. Casebook to be selected.

Lw. 308.—Common Law Pleading. 3 hours. 3 credits. CRANDALL.

Development of the personal actions at common law; theory of pleading and its peculiar features; demurrers; pleas; replication de injuria; duplicity; departure; new assignment; motions based on pleadings; general rules of pleadings. Keigwin, *Cases on Common Law Pleading*, 2nd edition.

Lw. 309.—Property. 2 hours. 2 credits. DAY.

Personal property; possession and rights based thereon; acquisition of title; liens and pledges; conversion. Warren, *Cases on Property*, 2nd edition.

Lw. 312.—Property. 2 hours. 2 credits. DAY.

Introduction to the law of conveyancing; rights incident to ownership of land and estates therein, including the land itself, air, water, fixtures, emblements, waste; profits; easements; licenses; covenants running with the land. Warren, *Cases on Property*, 2nd edition; Day, *Outline on Property*.

Lw. 401.—United States Constitutional Law. 4 hours. 4 credits. SLAGLE.

Distribution of powers; civil rights; impairment of contractual obligations; due process; equal protection; and interstate commerce. Hall, *Cases on Constitutional Law*.

Lw. 402.—Evidence. Offered only in the first semester. 4 hours. 4 credits. TE SELLE.

Witnesses, including competency, privilege, examination, impeachment and rehabilitation; character evidence; hearsay and the exceptions to its exclusion; opinion; real evidence; proof of execution of writings; the "best evidence" rule: judicial notice, presumptions, and burden of proof. Morgan and Maguire, *Cases on Evidence*, 2d Edition.

***Lw. 403.—Agency.** Offered only in the second semester. 2 hours. 2 credits.

Nature, creation of the relation; rights and duties of agents; termination, nature, extent, construction, and execution of authority of agents; rights, duties, and liabilities of agents; principal and third persons inter se; particular classes of agents. Mechem, *Cases on Agency*, 2nd edition.

***Lw. 404.—Quasi Contracts.** Offered only in the first semester. 2 hours. 2 credits. CRANDALL.

Origin and nature of quasi contract; benefits conferred in misreliance on rights or duty, from mistake of law, and on invalid, unenforceable, illegal, or impossible contract; benefits conferred through dutiful intervention in another's affairs; benefits conferred under constraint; action for restitution. Woodruff, *Cases on Quasi Contracts*, 3rd edition.

Lw. 405.—Equity Pleading. Offered only in the second semester. 2 hours. 2 credits. TE SELLE.

Pleading in equity; parties to, proceedings in a suit in equity; bills in equity; disclaimer; demurrers and pleas; answer and replication; preparation of bills, demurrers, pleas, answers. Keigwin, *Cases in Equity Pleading*, 2nd edition; *Florida Chancery Act*.

Lw. 406.—Private Corporations. 4 hours. 4 credits. SLAGLE.

Creation and citizenship; powers and liabilities; corporations and the state; foreign corporations; practice in forming and conducting corporations, preparing by-laws, electing officers, and in conducting corporate business. Canfield and Wormser, *Cases on Corporations*, 3rd edition.

Lw. 408.—Legal Ethics and Bibliography. 3 hours. 2 credits. PRIDGEN.

Organization of the bar; attorneys and professional conduct; the classes of law books; the location and use of decisions and statutes; the trial brief; the brief on appeal. Arant, *Cases on Legal Ethics;* Brandt, *How to Find the Law*, 3rd edition.

Lw. 409.—Property. 3 hours. 3 credits. DAY.

Titles and conveyancing; the execution of deeds; estates created; covenants for titles; estoppel by deed; priorities among titles. Warren, *Cases on Property*, 2nd edition.

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*Not offered in 1945-46.

Lw. 410.—Property. 3 hours. 3 credits. CRANDALL.

Wills; testamentary capacity; revocation; probate; administration of estates. Warren, *Cases on Wills. Florida Probate Act.*

Lw. 411.—Florida Constitutional Law. Offered only in the second semester. 2 hours. 2 credits. TRUSLER.

Constitutional guarantees; departments of government; homesteads and exemptions; married women's property. Constitution, Statutes, and Judicial Decisions of Florida.

Lw. 413.—Florida Civil Practice. 3 hours. 3 credits. CRANDALL.

Organization of courts; parties; joinder and consolidation of actions; issuance, service, and return of process; appearance; trial; verdict; proceedings after verdict; appellate proceedings; peculiar characteristics of the common law actions; special proceedings. Crandall, *Florida Common Law Practice.*

***Lw. 415.—Abstracts.** Offered only in the second semester. 2 hours. 2 credits. Prerequisite: Lw. 312.

Interpretation of maps and plotting of lots described by metes and bounds; the formal requisites of conveyances in use in Florida; deeds executed by public and judicial officers; liens and contracts for the sale of lands. *Florida Statutes* and selected Florida cases.

***Lw. 416.—Insurance.** Offered only in the first semester. 2 hours. 2 credits. TE SELLE.

Theory, significance; insurable interest; concealment, representations, warranties; subrogation; waiver and estoppel; assignees, beneficiaries; creditors. Vance, *Cases on Insurance,* 3rd edition.

Lw. 417.—Partnership. 2 hours. 2 credits. DAY.

Creation, nature, characteristics of a partnership; partner's interest, liability; powers, rights, duties: rights and remedies of creditors; termination of partnership. Mechem, *Cases on Partnership,* Matthews' Revision.

Lw. 418.—Taxation. Offered only in the first semester. 3 hours. 3 credits. CRANDALL.

Legitimate purposes of taxation; the so-called property tax and tax administration; excise taxes; estate and inheritance taxes; income taxes. Magill and Maguire, *Cases on the Law of Taxation,* 3rd edition.

***Lw. 421.—Legislation.** Offered only in the second semester. 2 hours. 2 credits. CRANDALL.

The role of legislation in the development of the law; growth and province of legislation; forms of legislation; technique of legislative research; procedure and drafting; interpretation and construction of statutes. Horack, *Materials on Legislation.*

***Lw. 432.—Current United States Constitutional Law.** 2 hours. 2 credits. SLAGLE.

Bill of Rights; taxation; governmental regulation; foreign statutes and judgments; departmental relations; inter-governmental relations. U. S. Reports and selected materials.

***Lw. 502.—Damages.** 2 hours. 2 credits. TRUSLER.

General principles; torts; measure in contract and tort actions; avoidable consequences; value; interest; death by wrongful act. Trusler, *Florida Cases on Damages.*

***Lw.—503.—Public Utilities.** 2 hours. 2 credits. SLAGLE.

Nature of public utilities; common carriers; telegraphs and telephones; light, water and gas companies; inns; warehouses; elevators; stockyards; public control; rights and obligations at common law and under federal and state statutes. Welch, *Cases on Public Utility Regulation,* 2nd edition.

***Lw. 504.—Muncipal Corporations.** 2 hours. 2 credits. CRANDALL.

Nature; creation; control; nature of ordinances; powers; legislative and administrative procedure; home rule; initiative, referendum, recall; officers; merit system; remedies; torts. Seasongood, *Cases on Municipal Corporations.*

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*Not offered in 1945-46.

Lw. 505.—Federal Jurisdiction. 2 hours. 2 credits. SLAGLE.

System of courts created under authority of the United States, jurisdiction, removal of cases from state courts; substantive law applied by federal courts; appellate jurisdiction. Dobie, *Cases on Federal Jurisdiction and Procedure.*

Lw. 506.—Negotiable Instruments. 3 hours. 3 credits. DAY.

Law merchant; definitions and general doctrines; contracts of the maker, acceptor, etc.; proceedings before and after dishonor of negotiable instruments; absolute defense; equities; payments; conflict of laws. Britton, *Cases on Bills and Notes,* 3d edition.

Lw. 508.—Conflict of Laws. 3 hours. 3 credits. SLAGLE.

Jurisdiction; sources of law and comity; remedies, rights of action, procedure; rights; inheritance; obligations ex delicto and ex contractu; personal relations; property inheritance; administration of estates; judgments and obligations. Lorenzen, *Cases on Conflict of Laws,* 2nd edition.

***Lw. 509.—Sales.** 2 hours. 2 credits. DAY.

Sale and contract to sell; statute of frauds; illegality; conditions and warranties; delivery; acceptance and receipt; vendor's lien; stoppage in transitu; bills of lading; remedies of seller and buyer. *Vold on Sales.*

Lw. 513.—Property. Offered only in the second semester. 3 hours. 3 credits. CRANDALL.

Conditional estates; licenses and waivers; reversions and remainders; rule in Shelley's Case; future uses; future interests; executory devises and bequests; vesting of legacies. Kales, *Cases on Future Interests,* 2nd edition.

Lw. 515.—Mortgages. 2 hours. 2 credits. TRUSLER.

Kinds of mortgages; mortgage debt; rights and duties of parties; priorities; conveyance of mortgaged land; discharge; subrogation; contribution; marshalling; assignment; foreclosure. *Walsh on Mortgages;* Florida statutes and cases.

***Lw. 516.—Practice Court.** 6 hours laboratory. 1 credit.

Preparation of pleadings and trials of civil and equity cases.

***Lw. 517.—Practice Court.** 3 hours laboratory. 1 credit.

Preparation of indictments and informations, and trial of criminal cases.

Lw. 518.—Trial Practice, II. 2 hours. 2 credits. TE SELLE.

New trials; bills of exceptions; appellate proceedings; new rules of civil procedure. McBaine, *Cases on Trial Practice,* 2nd edition; *Federal Rules of Civil Procedure,* selected cases.

Lw. 519.—Trial Practice, I. 2 hours. 2 credits.

Jurisdiction; process; the jury; instructions; trials; verdicts; judgments. McBaine, *Cases on Trial Practice,* 2nd edition.

Lw. 520.—Creditors' Rights. 3 hours. 3 credits. TE SELLE.

Remedies of the unsecured creditor; fraudulent conveyances; creditors' agreements; general assignment for benefit of creditors; equity and statutory receiverships; bankruptcy. Holbrook and Aigler, 4th edition.

Lw. 521.—Trusts. Offered only in the second semester. 2 hours. 2 credits. DAY.

The Anglo-American system of uses and trusts; creation, transfer, extinguishment of trust interests; priorities between competing equities; construction of trust dispositions. Bogert, *Cases on Trusts.*

Lw. 522.—Admiralty. Offered only in the first semester. 2 hours. 2 credits. SLAGLE.

Jurisdiction; contracts; torts, crimes; maritime liens, ex contractu, ex delicto, priorities, discharge; bottomry and respondentia obligations; salvage; towage; general average. Lord and Sprague, *Cases on Admiralty.*

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*Not offered in 1945-46.

*Lw. 530.—Administrative Law. 2 hours. 2 credits. SLAGLE.

Creation of administrative tribunals; legislative functions; judicial functions; administrative functions; doctrine of separation of powers; limits upon discretion; securing information; notice and hearing; enforcement of rules and orders; control of action; judicial relief. Stason, *Cases and Materials on Administrative Tribunals.*

Lw. 531.—Equitable Remedies. 2 hours. 2 credits. CRANDALL.

Interpleader; bills of peace; bills quia timet; removal of cloud on title; declaratory judgments. Chafee, *Cases on Equitable Remedies.*

Lw. 601.—Legal Research. Private Research. 1 to 3 credits. Prerequisite: Juniors: 2.5 honor point average; Seniors: 2.0 honor point average.

Mature investigation of special problems in substantive or adjective law, jurisprudence or legal history, under the supervision of a member or members of the faculty.

MATHEMATICS

Ms. 105.—Basic Mathematics. Offered each semester. 4 hours. 4 credits. STAFF. The first half of the course Ms. 105-106. Prerequisite: C-42, except for the superior group in Mathematics.

Ms. 105-106: Designed for University College students. In place of the traditional college algebra, trigonometry, and analytic geometry in succession, this course offers a completely new sequence of topics including much of the above plus a liberal amount of the calculus. Thus the student will obtain early a working knowledge of such mathematics as is basic to the study of the sciences and other subjects, and needed for the cultivation of habits productive of clear thinking, writing, and speaking. Moreover, the choice of material is so made as to present mathematics as an integrated whole, and at the same time to show its correlation with other subjects in the curriculum.

Ms. 106.—Masic Mathematics. Offered each semester. 4 hours. 4 credits. STAFF. The second half of the course Ms. 105-106.

Ms. 308.—Business Mathematics. 3 hours. 3 credits. Prerequisite: C-42 or equivalent.

Modern mathematical treatment of the problems of banking and business. Derivation and application of numerous formulas of importance in the financial world.

Ms. 310.—Statistical Methods. 3 hours. 3 credits. Prerequisite: Permission of instructor.

Presents the bases back of the various procedures as well as practical computational methods, but avoids mathematical derivations. Regression surfaces; method of least squares; partial, multiple, and other correlation; elementary sampling theory; reliability of statistical measures; Chi-square tests; "Student's distribution"; analysis of variance; advanced graphical techniques.

Ms. 311.—Advanced College Algebra. 3 hours. 3 credits. The first half of the course Ms. 311-312. Prerequisite: Ms. 105-106, or equivalent.

Ms. 311-312: The further treatment of some of the material and processes of CMs. 23-24, and the introduction to more advanced topics. Hall and Knight, *Higher Algebra.*

Ms. 312.—Advanced College Algebra. 3 hours. 3 credits. The second half of the course Ms. 311-312.

Ms. 320.—Theory of Equations. 3 hours. 3 credits. Prerequisite: CMs. 23-24 or equivalent.

Theorems and methods of solution relating to equations of higher degree. Dickson, *First Course in the Theory of Equations.*

Ms. 325.—Advanced General Mathematics. 3 hours. 3 credits. Prerequisite: Consent of instructor.

Continuation of the arithmetic and algebraic topics treated in C-42 together with some supplementary material. The deeper meaning of laws underlying number operations. Some properties of positive whole numbers. Equations of various types classified and general solutions given. Higher functional analysis. Valuable to prospective teachers of mathematics and others who wish to continue some mathematical work without becoming specialists in pure mathematics.

Ms. 326.—Advanced General Mathematics. 3 hours. 3 credits. Prerequisite: Consent of instructor. May precede, follow, or be taken simultaneously with Ms. 325.

Continuation of the geometric and trigonometric topics treated in C-42 together with some supplementary material. The nature of a geometric proof. Types of proof. Problems in geometric construction. The generalization of theorems. Trigonometry as an extension of geometry. Analysis of the locus idea in mathematics. Field and laboratory work in geometry and trigonometry.

Valuable to prospective teachers of mathematics and others who wish to continue some mathematical work without becoming specialists in pure mathematics.

Ms. 353.—Differential Calculus. Offered each semester. STAFF. 4 hours. 4 credits. The first half of the course Ms. 353-354. Prerequisite: Ms. 105-106 or equivalent.

Ms. 353-354: Differentiation and integration. Typical problems solved by these methods are calculation of rates of change, computation of areas, volumes, moments of inertia, energy, power, and many others. Various advanced topics of special value to engineers and scientists.

Ms. 354.—Integral Calculus. Offered each semester. STAFF. 4 hours. 4 credits. The second half of the course Ms. 353-354.

Ms. 385.—Advanced Trigonometry. 3 hours. 3 credits. Prerequisites: Plane trigonometry and solid geometry, or Ms. 105-106.

Special emphasis on spherical trigonometry. The first part of the course consists of a recapitulation of the essentials of plane trigonometry and the development of some further topics in that field. Then follows a development of the formulas relating to triangles formed by great circles on a sphere.

Ms. 402.—Solid Analytic Geometry. 3 hours. 3 credits. Prerequisite: Consent of instructor.

An introductory course dealing with lines, planes, surfaces, transformations of coordinates, the general equation of the second degree, and properties of quadrics. Snyder and Sisam, *Analytic Geometry of Space.*

Ms. 420.—Differential Equations. Offered only the first semester. 3 hours. 3 credits. Prerequisite: Ms. 353-354.

The classification, solution, and application of various equations which contain expressions involving not only variables, but also the derivatives of these variables. Conkwright, *Differential Equations.*

Ms. 421.—Higher Mathematics for Engineers and Physicists. Offered only in the second semester. 3 hours. 3 credits. Prerequisite: Ms. 353-354.

Introduces the student to various mathematical fields. Sokolnikoff, *Higher Mathematics for Engineers and Physicists.*

Ms. 431.—College Geometry. 3 hours. 3 credits.

The use of elementary methods in the advanced study of the triangle and circle. Special emphasis on solving original exercises. Valuable to prospective high school geometry teachers. Altshiller-Court, *College Geometry.*

GRADUATE COURSES

Prerequisites: A student must have an undergraduate major in Mathematics or its equivalent as determined by the department.

Not all courses are given each year. Prerequisites to the courses should be determined by consultation with the instructor.

Ms. 502.—Vector Analysis. 3 hours. 3 credits.

The algebra and calculus of vectors in two and three dimensions. Applications to problems in Physics and Engineering.

Ms. 511.—Introduction to Higher Algebra. 3 hours. 3 credits. The first half of the course Ms. 511-512.

Ms. 511-512: An introduction to the theory of matrices, linear dependence, linear transformations, bilinear and quadratic forms.

Ms. 512.—Introduction to Higher Algebra. 3 hours. 3 credits. The second half of the course Ms. 511-512.

Ms. 518.—Theory of Groups of Finite Order. 3 hours. 3 credits.

Introduction to the group concept, a treatment of the pure group-theory, and numerous examples and applications.

Ms. 519.—Theory of Probability and Theory of Sampling. 3 hours. 3 credits.

Theory of probability. Frequency distributions. Normal and other frequency curves. Inverse probability. Method of least squares. Measures of reliability. Theory of sampling. Theory of small samples.

Ms. 520.—Advanced Statitics. 3 hours. 3 credits.

Various measure of correlation. Tetrachoric r. Curvilinear correlation. Partial and multiple correlation. Regression surfaces. Normal surfaces. Derivation of formulas. The Gram-Charlier series. Measures of reliability. Analysis of variance. Design of experiments.

Ms. 521.—Empirical Analysis and Curve Fitting. 3 hours. 3 credits.

Determination of equation from graphical analysis. Use of logarithmic and other special types of graphs. Method of least squares; application to residuals; application to numerical differentiation. "Curve smoothing" or regraduation of data. Gram polynomials. Numerical harmonic analysis. Periodgram analysis. Illustrated with the problems from the fields of botany, engineering, chemistry, physics. The student is advised but is not required to take Ms. 522 before taking this course.

Ms. 522.—Finite Differences and Interpolation. 3 hours. 3 credits.

The elements of the calculus of finite differences. Interpolation formulas. Inverse interpolation. Subtabulation of data. Numerical differentiation. Numerical integration. Summation in terms of integration and differentiation. Derivation of formulas from functional or recurrence relations. The student should have a knowledge of calculus through Taylor's series.

Ms. 524.—Synthetic Projective Geometry. 3 hours. 3 credits.

Pure geometry dealing primarily with properties unaltered by the processes of projection and section; principal theorems involved; theory of poles, polars, involution, and kindred topics.

Ms. 525.—Econometrics. 3 hours. 3 credits. The first half of the course Ms. 525-526.

Ms. 525-526: The mathematical interpretation of economic hypotheses. Conclusions reached by mathematical treatment and procedure. Mechanism for the comparison of conclusions with observations. This course is concerned with the method of dealing mathematically with the material of economics, rather than with the validity of the hypotheses and laws involved.

Ms. 526.—Econometrics. 3 hours. 3 credits. The second half of the course Ms. 525-526.

Ms. 536—Foundations of Geometry. 3 hours. 3 credits.

An investigation of the assumptions of geometry; the parallel postulate; steps leading to non-Euclidean geometrics; consequent development of modern branches of the subject; elements of non-Euclidean plane geometry.

Ms. 551.—Advanced Topics in Calculus. 3 hours. 3 credits. The first half of the course Ms. 551-552.

Ms. 551-552: Topics of advanced nature selected from the calculus, including partial differentiation, Taylor's theorem, infinite series, continuation of simple multiple integrals, line and surface integrals, Green's theorem, etc.

Ms. 552.—Advanced Topics in Calculus. 3 hours. 3 credits. The second half of the course Ms. 551-552.

Ms. 555.—Functions of a Complex Variable. 3 hours. 3 credits. The first half of the course Ms. 555-556.

Ms. 555-556: Fundamental operations with complex numbers; differentiation and integration theorems; mapping; transformations; series.

Ms. 556.—Functions of a Complex Variable. 3 hours. 3 credits. The second half of the course Ms. 555-556.

Ms. 559.—Functions of Real Variable. 3 hours. 3 credits. The first half of the course Ms. 559-560.

Ms. 559-560: The real number system; theory of point sets; rigorous investigation of many questions arising in the calculus; Lebesque integral; infinite series.

Ms. 560.—Functions of Real Variable. 3 hours. 3 credits. The second half of the course Ms. 559-560.

Ms. 568.—History of Elementary Mathematics. 3 hours. 3 credits.

A survey of the development of mathematics through the calculus, with special emphasis on the changes of the processes of operations and methods of teaching. No specific text is followed, but numerous works are used as references.

MECHANICAL ENGINEERING

Ml. 181.—Engineering Drawing. Offered each semester. 1 hour, and 4 hours drawing. 2 credits. FRASH.

Designed to teach the student how to make and how to read engineering drawings. French, *Engineering Drawing*

Equipment costing about thirty dollars is required but will be used extensively in later work.

Ml. 182.—Descriptive Geometry. Offered each semester. 1 hour, and 4 hours drawing. 2 credits. FRASH. Prerequisite: Ml. 181.

The principles of projection and the development of surfaces. *Instructor's Notes.*

Ml. 281.—Elementary Design. 2 hours, and 3 hours drawing. 3 credits. FRASH. Prerequisite: Ml. 182.

The size and proportions of standard machine parts, screws, thread, bolts, nuts, pipe, pipe fittings, shafts, bearing, tolerances and allowances riveted and welded joints, springs, lubrication, and design of simple machine parts. French, *Engineering Drawing.*

Ml. 282.—Mechanism and Kinematics. 2 hours, and 3 hours drawing. 3 credits. FRASH. Prerequisites: CMs. 24, Ps. 205, Ml. 182.

Revolving and oscillating bodies, link work, belts, pulleys, gears, and cams; trains of mechanisms and the velocity and directional ratio of moving parts. Keown and Faires, *Mechanism.*

Ml. 384.—Metallography. 2 hours, and 2 hours laboratory. 2 credits. ESHLEMAN. Prerequisite: Cg. 361.

The crystal structure of ferrous and non-ferrous ,metals and their alloys; the iron-carbon diagram, heat treatment, nd use of steel and cast iron. Dowdell, Jerabek, Forsyth and Green, *Metallography.*

Ml. 385.—Thermodynamics. 3 hours. 3 credits. EBAUGH. Prerequisites: Ms. 353-354, Ps. 205-206, Cy. 101-102.

Energy equations and availability of energy; gases, vapors, and mixtures; engineering applications in flow of fluids, vapor power cycles, gas compression and refrigeration. Ebaugh, *Engineering Thermodynamics.*

Ml. 386.—Power Engineering. 3 hours. 3 credits. EBAUGH. Prerequisite: Ml. 385 or Cg. 467-468.

Steam and internal combustion engine power plants and their auxiliary equipment. Gaffert, *Steam Power Stations.*

Ml. 387.—Mechanical Laboratory. 1 hour, and 3 hours laboratory. 1 credit. EBAUGH. Corequisite: Ml. 385.

The preparation of engineering reports, computation aids, and the measurement of length, area, time, speed, pressure, and temperature. Shoop and Tuve, *Mechanical Engineering Practice.*

Ml. 388.—Mechanical Laboratory. 1 hour, and 3 hours laboratory. 1 credit. BOURKE. Prerequisite: Ml. 387; Corequisite: Ml. 386.

Analysis of fuels, heating value, flue gas analysis, and the testing of boilers, turbines, engines and steam plant auxiliary apparatus. Shoop and Tuve, *Mechanical Engineering Practice.* A.S.M.E., *Power Test Codes.*

Ml. 473.—Seminar. 1 hour. 1 credit. EBAUGH and STAFF. The first half of the course Ml. 473-474.

Ml. 473-474: The presentation of papers on current developments in mechanical engineering.

Ml. 474.—Seminar. 1 hour. 1 credit. EBAUGH and STAFF. The second half of the course Ml. 473-474.

***Ml. 480.—Marine Engineering.** 2 hours, and 3 hours laboratory. 3 credits. FINEREN. Prerequisite: Ml. 491.

A brief course in the general theory of naval architecture, the ship form, ship displacement, stability, buoyancy, strength of hull, resistance of hull, ship power, propellers, power and speed trials, structural design of ships, both wood and steel. The installation of steam plant and accessories and the Diesel electric drive.

The design and layout in the drawing room of ship sections, main propelling units and propeller design, with accompanying vibration studies.

Ml. 481.—Internal Combustion Engines. Offered each semester in 1942-43 and only in the second semester thereafter. 3 hours. 3 credits. LEGGETT. Prerequisite: Ml. 385.

Gas and liquid fuel, internal combustion engines, hot-air engines, and gas producers. Automotive, aircraft, and Diesel power plants. Lichty, *Internal Combustion Engines.*

Ml. 482.—Refrigeration and Air Conditioning. 3 hours. 3 credits. EBAUGH. Prerequisite: Ml. 385.

Refrigerating and air conditioning apparatus and their applications to the industrial, commercial and residential fields. Jennings and Lewis, *Air Conditioning and Refrigeration.*

Ml. 483.—Mechanical Laboratory. 1 hour, and 3 hours laboratory. 1 credit. LEGGETT. Prerequisite: Ml. 387; Corequisite: Ml. 481.

The testing of lubricants, gasolines, automobile engines, aircraft engines, and high and low speed Diesel engines. U. S. Government Specifications, *Lubricants and Liquid Fuels;* A.S.M.E., *Power Test Codes;* Shoop and Tuve, *Mechanical Engineering Practice.*

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*Not offered in 1945-46.

Ml. 484.—Mechanical Laboratory. 1 hour, and 3 hours laboratory. 1 credit. EBAUGH. Prerequisite: Ml. 387; Corequisite: Ml. 482.

Tests of an ammonia ice plant, freon direct expansion air conditioner, air washers, air conditioner, fans, the study of pneumatic and electric controls, and air distribution. A.S.M.E., A.S.R.E., and A.S.H.&V.E., *Test Codes*, Shoop and Tuve, *Mechanical Engineering Practice*.

Ml. 489.—Manufacturing Operations. 1 hour, and 4 hours laboratory. 3 credits. TIFFIN. The first half of the course Ml. 489-490. Prerequisite: Ig. 366 or Corequisite: Ig. 367.

Ml. 489-490: Machinery, materials, and methods used in manufacturing. Subjects covered include casting, forging, heat treatment, welding, cutting and machining of metals with applications of time and motion study and cost analysis. Begeman, *Manufacturing Processes*.

Ml. 490.—Manufacturing Operations. 1 hour, and 4 hours laboratory. 3 credits. TIFFIN. The second half of the course Ml. 489-490.

Ml. 491.—Machine Design. 3 hours, and 3 hours drawing. 4 credits. FRASH. Prerequisite: Ml. 281, Cg. 361, Ig. 365, 366, 367.

The calculation, proportioning and detailing of machine parts, shop and mill layout, and the design of machines to perform certain functions.

Ml. 492.—Advanced Machine Design. 2 hours, and 3 hours drawing. 3 credits. FRASH. Prerequisite: Ml. 491.

A continuation of Ml. 491 with advanced problems in design.

Ml. 493.—Mechanical Design. 3 hours. 3 credits. EBAUGH and STAFF. The first half of the course Ml. 493-494.

Ml. 494.—Mechanical Design. 3 hours. 3 credits. EBAUGH and STAFF. The second half of the course Ml. 493-494.

GRADUATE COURSES

Prerequisites: See the prerequisites for the various courses offered.

Ml. 581.—Advanced Mechanical Design. 3 credits. EBAUGH and STAFF. First half of the course Ml. 581-582. Prerequisite: Ml. 491 (Machine Design).

Ml. 581-582 is a course arranged to permit advanced students to pursue design projects in the Mechanical Engineering field.

Ml. 582.—Advanced Mechanical Design. 3 credits. EBAUGH and STAFF. The second half of the course Ml. 581-582. Prerequisite: Ml. 581.

Ml. 583.—Mechanical Research. 3 credits. EBAUGH and STAFF. The first half of the course Ml. 583-584. Prerequisite: Ml. 483-484 (Mechanical Laboratory).

Ml. 583-584 is a course arranged to permit advanced students to pursue research projects in the Mechanical Engineering field.

Ml. 584.—Mechanical Research. 3 credits. EBAUGH and STAFF. The second half of the course Ml. 583-584. Prerequisite: Ml. 583.

Ml. 585.—Advanced Air Conditioning. 3 credits. EBAUGH. Prerequisite: Ml. 482 (Refrigeration and Air Conditioning).

A continuation of Ml. 482 with emphasis on design and estimation of systems.

Ml. 586.—Advanced Engineering Thermodynamics. 3 credits. EBAUGH. Prerequisite: Ml. 385 (Thermodynamics).

A study of the general equations of thermodynamics and their applications and advanced study of combustion processes.

Ml. 589.—Advanced Mechanical Laboratory. 3 credits. EBAUGH and STAFF. The first half of the course Ml. 589-590. Prerequisites: Ml. 483-484 (Mechanical Laboratory).

Ml. 589-590 is a course arranged to permit advanced students to pursue experimental projects in the Mechanical Engineering field.

Ml. 590.—Advanced Mechanical Laboratory. 3 credits. EBAUGH and STAFF. The second half of the course Ml. 589-590.

MILITARY SCIENCE

My. 101.—First-Year Infantry. 5 hours. 1 credit. JOYNER, HUMPHRIES. The first half of the course My. 101-102.

My. 101-102: Military fundamentals; infantry drill; extended order; field sanitation; first aid; map reading; military courtesy and discipline; organization; rifle and rifle marksmanship. War Department, *Training Regulations.*

My. 102.—First-Year Infantry. 5 hours. 1 credit. JOYNER, HUMPHRIES. The second half of the course My. 101-102.

My. 201.—Second-Year Infantry. 5 hours. 1 credit. HUMPHRIES. The first half of the course My. 201-202.

My. 201-202: Military fundamentals; infantry drill; extended order; camouflage; scouting and patroling; interior guard duty; antomatic rifle; tent pitching. War Department, Training *Regulations.*

My. 202.—Second-Year Infantry. 5 hours. 1 credit. HUMPHRIES. The second half of the course My. 201-202.

MUSIC

Se page 38 for regulations concerning registration for Band.

Msc. 101.—Orchestra Music. 1 hour. 1 credit. BROWN. The first half of the course Msc. 101-102.

Msc. 102.—Orchestra Music. 1 hour. 1 credit. BROWN. The second half of the course Msc. 101-102.

Msc. 301.—Rudiments of Vocal Music. 1 hour, and 2 hours laboratory. 2 credits. DEBRUYN.

The basic elements of vocal music. Notation, solfeggio, interpretation, survey of styles, mastery of certain principles of voice necessary for development. Practical work, ensemble singing.

Msc. 302.—Choral Directing. 1 hour, and 2 hours laboratory. 2 credits. DEBRUYN. Prerequisite: Msc. 301.

A continuation of Msc. 301. Choral voice, solfeggio, interpretation, problems of ensembles, repertoire evaluation, practice in ensemble directing.

Msc. 310.—Music Appreciation. 1 hour, and 2 hours laboratory or audition. 2 credits. MURPHREE.

Intended to foster a better understanding and enjoyment of good music, by listening intensively to and discussing the works of a wide variety of composers.

May be taken in conjunction with C-5, or following C-5. Material to be presented not only for intrinsic cultural value, but also to benefit those interested in radio; place of music in commercial broadcasting, types of music required for various radio programs, will be considered.

Special topics: Bach and pre-Bach; Sonata form and development of the symphony; the Wagnerian music-drama; ultra-modern music.

More intensive use of the Carnegie Music Set.

Bd. 111.—First Year Band. 3 hours. 1 credit. BROWN.

Bd. 112.—First Year Band. 3 hours. 1 credit. BROWN.

Bd. 211.—Second Year Band. 3 hours. 1 credit. BROWN.

Bd. 212.—Second Year Band. 3 hours. 1 credit. BROWN.

PAINTING

Courses in the Department of Painting are carried on by means of the problem or project method, and accomplishment is the sole criterion for advancement. Consequently, the courses are of indeterminate duration, and the time listed for each course represents merely the nominal time which the average student will need to complete the work.

Students in the Department of Painting must complete the various courses in the sequence listed in their respective curricula. Students from other departments may, with the consent of the instructor and the approval of the Director, enroll in courses for which they have sufficient preparation.

Lower Division

Pg. 11A.—Fundamentals of Pictorial Art. HOLBROOK.

A comprehensive introductory course to the fields of painting and commercial art, carried on by means of a coordinated series of beginning projects emphasizing the principles of creative design. Problems in line, pattern, and color, followed by the development of pictures or commercial layouts. The study of light and shade, and color; drawing from the cast, model, and landscape; painting from still life. Acquaintance with various media including water color, pencil, charcoal, and oil. Six projects. Nominal time, 9 hours a week for 4 semesters, or 18 hours a week for 2 semesters. (Equivalent to 12 credits.)

Upper Division

COMPOSITION

Pg. 21A.—Pictorial Composition. HOLBROOK.

A continuation of Pg. 11A for students in Painting. The study of principles, technique, and media. Fully developed pictures in oil, designs for mural decorations in water color, book illustrations, and small compositions. Nine projects correlated with Projects in Painting 1 to 9, inclusive. Nominal time, 9 hours a week for 3 semesters.

Pg. 21B.—Pictorial Composition. HOLBROOK.

A continuation of Pg. 21A for students in Painting. Development and completion of larger pictures in oil, designs for murals, and small compositions. Six projects correlated with Projects in Painting 10 to 15, inclusive. Nominal time, 15 hours a week for 2 semesters.

Pg. 22A.—Commercial Design. HOLBROOK.

A continuation of Pg. 11A for students in Commercial Art. The study of principles, techniques, and media. The design of posters, wallpaper, rugs, textiles, industrial art, and the like. The processes of duplicating graphic material, and a study of lettering. Six projects correlated with Projects in Commercial Art 1 to 6, inclusive. Nominal time, 12 hours a week for 2 semesters.

Pg. 22B.—Commercial Design. HOLBROOK.

A continuation of Pg. 22A for students in Commercial Art. Magazine covers and advertisements, book plates, book jackets and covers, illustrations, the development of an advertising campaign, and the design of industrial objects for human use. Six projects correlated with Projects in Commercial Art 7 to 12, inclusive. Nominal time, 18 hours a week for 2 semesters.

DRAWING

Pg. 31A.—Freehand Drawing. HOLBROOK.

A continuation of Pg. 11A for students in Painting. Studies for projects and supplementary drawing from models. Nine projects correlated with Projects in Painting 1 to 9, inclusive. Nominal time, 18 hours a week for 3 semesters.

Pg. 31B.—Freehand Drawing. HOLBROOK.

A continuation of Pg. 31A for students in Painting. Studies for projects and supplementary drawing from models. Six projects correlated with Projects in Painting 10 to 15, inclusive. Nominal time, 12 hours a week for 2 semesters.

Pg. 32A.—Freehand Drawing. HOLBROOK.

A continuation of Pg. 11A for students in Commercial Art. Studies for projects, sketches from models, and studies in perspective. Six projects correlated with Projects in Commercial Art 1 to 6, inclusive. Nominal time, 12 hours a week for 2 semesters.

Pg. 32B.—Freehand Drawing. HOLBROOK.

A continuation of Pg. 32A for students in Commercial Art. Studies for projects and supplementary drawing from models. Six projects correlated with Projects in Commercial Art 7 to 12, inclusive. Nominal time, 12 hours a week for 2 semesters.

HISTORY

Pg. 41A.—History of Painting. HOLBROOK.

For students in Painting. The history of painting with special attention to the principles of design as applied by painters of the past and present. Individual research, conferences, and illustrated reports. Six projects. Nominal time, 6 hours a week for 2 semesters.

PAINTING

Pg. 51A.—Oil Painting. HOLBROOK.

A continuation of Pg. 11A for students in Painting. Painting of still life and the head. Six projects correlated with Projects in Painting 1 to 6, inclusive. Nominal time, 15 hours a week for 2 semesters.

Pg. 51B.—Oil Painting. HOLBROOK.

A continuation of Pg. 51A for students in Painting. Painting of the head and figure. Nine projects correlated with Projects in Painting 7 to 15, inclusive. Nominal time, 15 hours a week for 3 semesters.

Pg. 52A.—Oil Painting. HOLBROOK.

A continuation of Pg. 11A for students in Commercial Art. Painting of still life, landscapes, heads, and figures. Six projects correlated with Projects in Commercial Art 1 to 6, inclusive. Nominal time, 12 hours a week for 2 semesters.

Pg. 52B.—Water Color. HOLBROOK.

A continuation of Pg. 52A for students in Commercial Art. Still life and simple landscapes in water color. Six projects correlated with Projects in Commercial Art 7 to 12, inclusive. Nominal time, 9 hours a week for 2 semesters.

THESIS IN PAINTING

Pg. 61A.—Thesis. HOLBROOK, GULLEY. Prerequisite: Completion of all other requirements for the degree.

A final comprehensive problem in painting presented as a representative piece of professional work in the student's particular medium and field with full preliminary studies and cartoon. The subject must be approved by the faculty in time to permit not less than 12 weeks for the development of the problem. One project. Nominal time, 48 hours a week for 1 semester.

GRADUATE COURSES

At present no master's degree is offered in this department.

Pg. 501.—Pictorial Composition. 9 to 18 hours studio. 3 to 6 credits. HOLBROOK. The first half of the course Pg. 501-502. Prerequisite: Pg. 61A (Thesis).

Pg. 501-502 is designed for students who are qualified to select and pursue advanced problems in pictorial composition.

Pg. 502.—Pictorial Composition. 9 to 18 hours studio. 3 to 6 credits. HOLBROOK. The second half of the course Pg. 501-502.

Pg. 523.—Oil Painting. 9 to 18 hours studio. 3 to 6 credits. HOLBROOK. The first half of the course Pg. 523-524. Prerequisite: Pg. 61A (Thesis).

Pg. 523-524 is designed for students who are qualified for advanced work in oil painting.

Pg. 524.—Oil Painting. 9 to 18 hours studio. 3 to 6 credits. HOLBROOK. The second half of the course Pg. 523-524.

PHARMACOGNOSY

Pgy. 221.—Practical Pharmacognosy. 6 hours laboratory. 3 credits. JOHNSON. The first half of the course Pgy. 221-22.

Pgy. 221-222: Sources of crude drugs and systematic classification of the vegetable and animal drugs of the United States. Pharmacopoeia and National Formulary. Youngken, *Textbook of Pharmacognosy; United States Pharmacopoeia and National Formulary.*

Pgy. 222.—Practical Pharmacognosy. 6 hours laboratory. 3 credits. JOHNSON. The second half of the course Pgy. 221-222.

Pgy. 242.—Drug Plant Histology. Offered only in the first semester. 4 hours laboratory. 2 credits.

Internal structure of medicinal plants. Cellular elements and types of tissues used as diagnostic characters in identification and detection of adulterations.

Pgy. 342.—Microscopy of Drugs. 4 hours laboratory. 2 credits. Prerequisite: Pgy. 242.

Microscopic structures and characteristics of types of drugs, methods of identification of powdered drugs and food products, and of detecting adulterations.

GRADUATE COURSES

Prerequisites:

1. Graduation from a standard College of Pharmacy.
2. A minimum of four hours of foundation work in General Botany or equivalent.
3. A minimum of six hours of foundation work in Practical Pharmacognosy or equivalent.
4. An additional minimum of four hours of foundation work in any or all of the following or equivalents: Plant Histology; Plant Microscopy; Plant Physiology; Plant Classification.

Pgy. 501.—Advanced Histology and Microscopy of Vegetable Drugs. 2 hours, and 4 hours laboratory and field work. 4 credits. JOHNSON.

Plant tissues and cell inclusions of importance as diagnostic characters. Detection of adulterations and substitutions and pharmacognostical description of new plants.

Pgy. 521.—Special Problems in Pharmacognosy. 4 hours laboratory or field work. 2 credits. JOHNSON. The first half of the course Pgy. 521-522.

Pgy. 521-522: Identification, classification and qualitative determination of constituents and properties of drug plants; special experiments in the propagation, cultivation, harvesting and curing of native and exotic plants; field work in the collecting of drug plants native to Florida. Either half of the course may be taken for credit without the other half.

Pgy. 522.—Special Problems in Pharmacognosy. 4 hours laboratory or field work. 2 credits. JOHNSON. The second half of the course Pgy. 521-522.

Pgy. 525.—Drug Plant Analysis. 2 hours, and 4 hours laboratory and field work. 2 to 4 credits. JOHNSON. The first half of the course Pgy. 525-526.

Pgy. 525-526: Special problems in drug culture and in the isolation and identification of plant constituents. The effect of climatic and soil features on plant constituents. Pharmacognostical characteristics of new plants. Either half of the course may be taken for credit without the other half.

Pgy. 526.—Drug Plant Analysis. 2 hours, and 4 hours laboratory and field work. 2 to 4 credits. JOHNSON. The second half of the course Pgy. 525-526.

PHARMACOLOGY

Ply. 261.—Applied Physiology. 4 hours laboratory demonstration or discussion. 2 credits. The first half of the course Ply. 261-262.

Ply. 261-262: A study of the functions of the human body necessary as a basis for Ply. 351.

Ply. 262.—Applied Physiology. 4 hours laboratory demonstration or discussion. 2 credits. The second half of the course Ply 261-262.

Ply. 351.—Pharmacology. 3 hours. 3 credits. Prerequisite: Pgy. 221-222.

The manner of action, dosage, therapeutic uses, and toxicology of official and non-official drugs and poisons. Sollmann. *A Manual of Pharmacology; United States Pharmacopoeia and National Formulary.*

Ply. 362.—Pharmacology. 2 hours, and 4 hours laboratory. 4 credits. Prerequisite: Ply 351.

A continuation of pharmacology begun in Ply. 351.

Ply. 451.—Principles of Biologicals. 3 hours. 3 credits. Prerequisite: Ply. 362.

Advanced study of the pharmacology of drugs and pharmacological standardization with special reference to toxins, antitoxins, serums and vaccines.

Ply. 452.—Principles of Biologicals. 3 hours. 3 credits.

A study of gland products and vitamins with reference to action, standardization and uses.

Ply. 455.—New Remedies. 2 hours, and 2 hours laboratory. 3 credits. FOOTE. The first half of the course Ply. 455-456. Prerequisite: Phy. 353 or Phy. 354.

Ply. 455-456: A study of the most important non-official remedies currently found in modern prescription practice and over-the-counter sales. More than twelve hundred remedies are available for study.

Ply. 456.—New Remedies. 2 hours, and 2 hours laboratory. 3 credits. FOOTE. The second half of the course Ply. 455-456.

GRADUATE COURSES

Prerequisites:

1. Graduation from a standard College of Pharmacy.
2. A minimum of four hours of foundation work in *each* of the following or equivalents: Biology; Bacteriology.
3. A minimum of five hours of foundation work in Pharmacology or equivalent.
4. An additional minimum of four hours of foundation work in any or all of the following or equivalents: Biologicals; Gland Products; Physiology; Anatomy.

Ply. 512.—Advanced Pharmacology. 2 hours. 2 credits.

Theories of drug action. A comparison of methods of physiological assaying with applications to evaluation of drugs and medicines.

Ply. 514.—Advanced Pharmacology Laboratory. 4 hours. 2 credits.

Designed to supplement Ply. 512. Required for majors.

Ply. 517.—Clinical Methods. 1 hour and 6 hours laboratory. 3 credits. JOHNSON.

Modern methods employed in clinical procedure. A detailed study of normal and abnormal metabolism with emphasis on blood and urine analysis.

Ply. 551.—Special Problems in Pharmacology. 2 hours, and 4 hours laboratory. 4 credits. The first half of the course Ply 551-552.

Ply. 551-552: A comparison of methods of biological assaying. Special lectures and collateral reading, laboratory experiments, oral and written reports.

Ply. 552.—Special Problems in Pharmacology. 2 hours, and 4 hours laboratory. 4 credits. The second half of the course Ply 551-552.

PHARMACY

Phy. 211.—Inorganic Pharmacy. 3 hours, and 4 hours laboratory. 5 credits. HUSA. Prerequisites: Cy. 101-102, Phy. 223-224.

The inorganic compounds used in medicine; their Latin titles, origin, and physical, chemical, and physiological properties; their preparation and use in compounding remedies.

Phy. 223.—Galenical Pharmacy. 2 hours, and 3 hours laboratory. 3 credits. HUSA. The first half of the course Phy. 223-224. Prerequisite or corequisite: Cy. 101-102.

Phy. 223-224: Galenical preparations such as syrups, spirits, tinctures, extracts, and emulsions. The preparation of these materials extemporaneously on a small scale, and their manufacture in larger amounts.

Phy. 224.—Galenical Pharmacy. 2 hours, and 3 hours laboratory. 3 credits. HUSA. The second half of the course Phy. 223-224.

Phy. 353.—Organic and Analytical Pharmacy. Offered only in the second semester. 3 hours, and 6 hours laboratory. 5 credits. FOOTE. The first half of the course Phy. 353-354. Prerequisites: Cy. 262; Pgy. 222; Phy. 223-224.

Phy. 353-354: The chemistry and pharmacy of natural and synthetic drugs, including qualitative drug analysis.

Phy. 354.—Organic and Analytical Pharmacy. Offered only in the first semester. 3 hours, and 6 hours laboratory. 5 credits. FOOTE. The second half of the course Phy. 353-354. May be taken before Phy. 353 if the prerequisites are satisfied.

Phy. 361.—Prescriptions and Dispensing. 2 hours, and 6 hours laboratory. 4 credits. HUSA. The first half of the course Phy. 361-362. Prerequisites: Phy. 211; Prerequisites or corequisites: Phy. 353-354.

Phy. 361-362: Methods of compounding and dispensing various types of prescriptions, methods of detecting and overcoming incompatibilities, accepted methods of checking, pricing and filing prescriptions, professional pharmacy, hospital pharmacy and dental pharmacy. Husa, *Pharmaceutical Dispensing.*

Phy. 362.—Prescriptions and Dispensing. 2 hours, and 6 hours laboratory. 4 credits. HUSA. The second half of the course Phy. 361-362.

Phy. 372.—Commercial Pharmacy. 4 hours. 4 credits. HUSA. Prerequisite: Phy. 211.

The management of the retail pharmacy; business management, including merchandise information, retail buying, advertising, salesmanship, and accounting. Nolen and Maynard, *Drug Store Management.*

Phy. 381.—Pharmaceutical Jurisprudence. 2 hours. 2 credits. JOHNSON. Prerequisite: Phy. 211.

National, state, and local laws and regulations governing the practice of pharmacy; the pharmacist's liability, both criminal and civil, for his own violation of laws and for violation on the part of his agents.

Phy. 402.—Pharmaceutical Arithmetic. 2 hours. 2 credits. JOHNSON. Prerequisite: Phy. 354.

Calculations used in pharmaceutical work with emphasis on practical problems.

Phy. 432.—Advanced Drug Analysis. 1 hour, and 6 hours laboratory. 3 credits. FOOTE. Prerequisite: Phy. 353-354.

The more difficult analytical methods of the *United States Pharmacopoeia,* supplemented by other methods.

GRADUATE COURSES

Prerequisite: Graduation from a standard College of Pharmacy with the degree of B.S. in Pharmacy or its equivalent.

Phy. 502.—Selected Topics in Pharmacy. 2 hours. 2 credits. HUSA.

A general study of the newer types of pharmaceuticals, such as vitamin preparations, newer solvents, etc., with assigned readings on selected problems of current interest.

Phy. 503.—Advanced Pharmacy. 2 hours. 2 credits. HUSA.

Lectures and assigned readings on important pharmaceutical preparations, particularly those involving chemical changes.

Phy. 504.—Advanced Galenical Pharmacy. 2 hours. 2 credits. HUSA.

A detailed study of the fundamental research work on which formulas for various galenicals are based.

Phy. 541.—Manufacturing Pharmacy. 2 hours. 2 credits. HUSA.

A general study of the apparatus and processes used in the manufacture of pharmaceuticals on a factory scale. A detailed study of selected technical problems of current interest to those engaged in pharmaceutical manufacturing.

Phy. 553.—Synthetic Pharmaceuticals. 2 hours. 2 credits. FOOTE. Prerequisite: Phy. 354 (Organic and Analytical Pharmacy).

The preparation and chemotherapy of the more complex synthetic remedies.

Phy. 554.—Advanced Pharmacy. 2 hours. 2 credits. FOOTE.

Lectures and assigned reading on the pharmacy and chemistry of vegetable drugs.

PHILOSOPHY

***Ppy. 301.—Ethics.** 3 hours. 3 credits.

The ethical problems are presented in their logical as well as in their historical perspective. The following topics are samples: God and Evil, Happiness, Duty, Freedom, and Personality.

Ppy. 302.—The Philosophy of Religion. 3 hours. 3 credits.

An endeavor to evaluate the religious consciousness. Readings and discussions will center around theism, agnosticism, naturalism, and humanism.

Ppy. 303.—Introduction to Philosophy. 3 hours. 3 credits.

This course attempts to serve as a broad survey of philosophic problems and especially modern philosophic problems, such as evolution, the moral consciousness, progress, the principles of aesthetics, and the meaning of religion. It is a foundation course.

*Ppy. 401.—**Advanced Logic Seminar.** 2 hours. 3 credits. The first half of the course Ppy. 401-402. Prerequisites: Ppy. 409-410.

Ppy. 401-402: Theories of thought and knowledge.

*Ppy. 402.—**Advanced Logic Seminar.** 2 hours. 3 credits. The second half of the course Ppy. 401-402.

*Ppy. 403.—**Philosophy of Nature Seminar.** 2 hours. 3 credits. The first half of the course Ppy. 403-404. Prerequisites: Ppy. 409-410.

Ppy. 403-404: Man's relation to nature. The various philosophical doctrines: Materialism, pantheism, realism, agnosticism, humanism, idealism, et cetera.

*Ppy. 404.—**Philosophy of Nature Seminar.** 2 hours. 3 credits. The second half of the course Ppy. 403-404.

Ppy. 409.—**Ancient Philosophy.** 3 hours. 3 credits.

The development of philosophic thought from its appearance among the Ionic Greeks to the time of Descartes.

Ppy. 410.—**Modern Philosophy.** 3 hours. 3 credits.

A continuation of Ppy. 409. Special attention given to the works of Descartes, Spinoza, Leibnitz, Hume, and Kant.

*Ppy. 412.—**Outstanding Personalities and Problems in Philosophy.** 3 hours. 3 credits.

This course is intended, primarily, for those students who desire to acquaint themselves with the more fundamental problems of philosophy, but are unable to take the time required for Ppy. 409, 410.

GRADUATE COURSES

Prerequisites: Twenty-four hours in philosophy and related fields, of which at least twelve semester hours must be in philosophy.

*Ppy. 501.—**Advanced Logic Seminar.** 2 hours. 3 credits. The first half of the course Ppy. 501-502. Prerequisites: Ppy. 409-410 (History of Philosophy).

Ppy. 501-502: Theories of thought and knowledge. Readings from the original sources. Papers for discussion.

*Ppy. 502.—**Advanced Logic Seminar.** 2 hours. 3 credits. The second half of the course Ppy. 501-502.

Ppy. 503.—**Advanced History of Philosophy.** 3 hours. 3 credits. The first half of the course Ppy. 503-504. Prerequisites: Ppy. 301 (Ethics), Ppy. 302 (Philosophy of Religion).

Ppy. 503-504: The problems of philosophy in their historical development. Special readings from the original sources.

Ppy. 504.—**Advanced History of Philosophy.** 3 hours. 3 credits. The second half of the course Ppy. 503-504.

*Ppy. 505.—**Philosophy of Nature Seminar.** 2 hours. 3 credits. The first half of the course Ppy. 505-506. Prerequisites: Ppy. 409-410 (History of Philosophy).

Ppy. 505-506: Readings from the original sources. Papers for discussion. Man's relation to nature; the various philosophical doctrines; animism, pantheism, materialism, realism, agnosticism, humanism, idealism, etc.

*Ppy. 506.—**Philosophy of Nature Seminar.** 2 hours. 3 credits. The second half of the course Ppy. 505-506.

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*Not offered in 1945-46.

PHYSICS

Ps. 101.—General Physics. Offered each semester. 4 hours. 3 credits. STAFF. The first half of the course Ps. 101-102. Prerequisites: C-2, or consent of instructor. Corequisite: Ps. 103. May be taken for credit without Ps. 102.

Ps. 101-102: A course in general physics for science students.

Ps. 102.—General Physics. 4 hours. 3 credits. STAFF. The second half of the course Ps. 101-102. Corequisite: Ps. 104.

Ps. 103.—Laboratory for Ps. 101. 3 hours laboratory, and assigned outside work. 2 credits. BLESS and STAFF. The first half of the course Ps. 103-104. Corequisite: Ps. 101. May be taken for credit without Ps. 104.

Ps. 104.—Laboratory for Ps. 102. Offered each semester. 3 hours laboratory, and assigned outside work. 2 credits. BLESS and STAFF. The second half of the course Ps. 103-104. Corequisite: Ps. 102.

Ps. 205.—General Physics. 4 hours. 3 credits. STAFF. The first half of the course Ps. 205-206. Prerequisite: One year of college mathematics. Corequisite: Ps. 207, Ms. 353. May be taken for credit without Ps. 206.

Ps. 205-206: Theory of mechanics, heat, sound, electricity and light. Designed primarily for Engineering students.

Ps. 206.—General Physics. 4 hours. 3 credits. STAFF. The second half of the course Ps. 205-206. Corequisites: Ps. 208, Ms. 354.

Ps. 207.—Laboratory for Physics 205 and 211. 3 hours laboratory. 1 credit. PERRY and STAFF. The first half of the course Ps. 207-208. Corequisite: Ps. 205 or Ps. 211. May be taken for credit without Ps. 208.

Ps. 208.—Laboratory for Physics 206 and 212. 3 hours laboratory. 1 credit. PERRY and STAFF. The second half of the course Ps. 207-208. Corequisite: Ps. 206 or Ps. 212.

Ps. 211.—Elementary Physics. 5 hours. 4 credits. WILLIAMSON, PERRY. The first half of the course Ps. 211-212. Prerequisite: CMs. 23-24. Corequisite: Ps. 207.

Ps. 211-212: Designed to meet the needs of students majoring in physics and others who are qualified and desire to cover more material and problem work than is possible in Ps. 101-102 or Ps. 205-206.

Ps. 212.—Elementary Physics. 5 hours. 4 credits. WILLIAMSON, PERRY. The second half of the course Ps. 211-212. Corequisite: Ps. 208.

Ps. 221.—Recent Advances in Physics. 2 hours. 2 credits. BLESS. Prerequisite: C-2.

A cultural, non-mathematical course for the general student who does not major in the physical sciences, but who desires to have an understanding of the science of physics as a part of his cultural training. It is hoped that this course will enable the student to follow intelligently the advances in the sciences as they appear in the press. Contents: Historical development; the electrical age; discovery of the electron; X-rays, radio-activity; quantum physics; relativity; wave mechanics; nuclear physics; transmutation of elements; medical and biological applications of the new discoveries.

Ps. 224.—Sound and Its Application. 2 hours. 2 credits. WILLIAMSON. Prerequisite: C-2.

A course for the general student, not majoring in the sciences, but interested in the various phases of sound, with emphasis on music. Contents: Sound waves; sources of sound; reception

and recording; musical instruments; the voice and hearing; radio transmission and reception; depth sounding; supra-sonics.

Ps. 226.—Agricultural Physics. 3 hours. 3 credits. KNOWLES. Prerequisite: C-2. Open only to General College students preparing for Agriculture or to students in the College of Agriculture.

Designed for students majoring in Agriculture. The subject matter is confined to the material having direct applications in the field of agriculture. An attempt is made to give the student a working knowledge of the fundamental physical principles which he will encounter in his work in soils, agricultural engineering, plant physiology, dairying.

Ps. 292.—Meteorology. 2 hours, and 2 hours laboratory. 3 credits. PERRY. Prerequisite: C-2.

A brief general course, designed to give the student an insight into the physical processes and laws underlying the phenomena of weather and climate. It is to satisfy the interested curiosity of the general student as well as to furnish a foundation for further study on the part of those, such as aviation students, who are interested from the practical standpoint.

Ps. 303.—Experimental Physics. 6 to 9 hours laboratory. 2 or 3 credits. STAFF. The first half of the course Ps. 303-304. Prerequisite: One year of Physics.

Ps. 303-304: Experiments of a more advanced type than those of the elementary courses, together with study of the theory of the experiments and assigned reading, designed to meet the needs and interests of the individual students.

Ps. 304.—Experimental Physics. 6 to 9 hours laboratory. 2 or 3 credits. STAFF. The second half of the course Ps. 303-304.

Ps. 307.—Heat. 3 hours, and 3 hours laboratory. 4 credits. SWANSON. Prerequisite: One year of Physics. Corequisite: Calculus.

An intermediate treatment, with experiments to illustrate. Temperature and its measurement; combustion; specific heats; expansion; conduction; radiation; change of state; first and second laws of thermodynamics. Choice of experiments is permitted to meet the needs of the individual student.

Ps. 309.—Light. 3 hours, and 3 hours laboratory. 4 credits. SWANSON. Prerequisite: One year of Physics. Corequisite: Calculus.

An intermediate treatment with experiments to illustrate. Lenses; optical instruments; interference; diffraction; dispersion; polarization; emission of spectra and Bohr theory. Choice of experiments is permitted to meet the needs of the individual student.

Ps. 311.—Electricity and Magnetism. 3 hours. 3 credits. KNOWLES. Prerequisite: One year of college physics. Corequisite: Ps. 313 (except Electrical Engineers) and Calculus.

Designed to meet the growing need of physics, chemistry and electrical engineering students for a working knowledge of the basic principles of electricity and magnetism. Topics discussed include: electrostatics, dielectric theory, magnetostatics, direct current circuits, electrolytic conductivity, thermoelectric effects, electronic emission, electromagnetics and induced e, m. f.'s, magnetic circuits, and moving charges in electric and magnetic fields. (For those who do not intend to take further courses in electricity, some alternating current theory will be given in place of part of the laboratory work in Ps. 313.)

Ps. 313.—Electrical Measurements. 3 hours. 1 credit. KNOWLES. Corequisite: Ps. 311.

Laboratory practice in the theory and use of electrical instruments. Experiments include high and low resistance measurements, potentiometers, ballistic galvanometer, measurements on the magnetic properties of iron, electrolytic conductivity, and vacuum tube amplifiers and oscillators. The student is allowed some choice of experiments to meet his individual needs.

Ps. 316.—Spectrochemical Analysis. 2 hours, and 3 hours laboratory. 3 credits. SWANSON. Prerequisite: One year of Physics.

For students of Chemistry and Physics interested in chemical analysis carried out by spectrographic means. Lenses and spectrographic instruments; emission and absorption spectra and nomenclature; discharge in vacuo, arc and spark; qualitative spectrochemical analysis; quantitative spectrochemical analysis; absorption methods.

Ps. 320.—X-rays and the New Physics. 2 hours, and 3 hours laboratory. 3 credits. BLESS. Prerequisite: One year of college physics. Desirable corequisite: Calculus.

A companion course to Ps. 321. Also of interest to students wishing some knowledge of X-rays and their applications. The discovery of X-rays and radioactivity; the Bohr theory; photoelectric effect; X-ray spectroscopy; biological applications of X-rays; the neutron; positron; high voltage production and phenomena; cosmic rays.

Ps. 321.—Advanced General Physics. 3 hours. 3 credits. WILLIAMSON. Prerequisite: One year of college physics. Corequisite: Calculus.

Particularly suitable for those who wish to obtain a better understanding of the whole of the science and of the philosophic tendencies of the present day physics, as well as for students of mathematics who may be interested in physical applications. More quantitative treatment of some of the most fundamental laws of physics, including among other topics kinetic theory of gases, alternating and oscillating current phenomena, radio and television.

Ps. 405.—Theoretical Mechanics. 3 hours. 3 credits. BLESS. The first half of the course Ps. 405-406. Prerequisites: Two years of college physics; calculus.

Ps. 405-406: Statics of systems of rigid bodies. Motions of particles and of rigid bodies under constant and variable forces. (The same recitations are held for Ps. 505-506. Graduate students are required to solve problems of a more advanced character.)

Ps. 406.—Theoretical Mechanics. 3 hours. 3 credits. BLESS. The second half of the course Ps. 405-406.

Ps. 412.—Advanced Electricity. 2 hours, and 4 hours laboratory. 4 credits. KNOWLES. Prerequisite: Ps. 311 or equivalent, and calculus.

Varying and alternating current circuits, measurements, and instruments; complex algebra; solution of alternating current circuits; coupled circuits.

Ps. 423.—Chemical Physics. 3 hours. 3 credits. The first half of the course Ps. 423-424. Prerequisites: Two years of physics and two years of chemistry. May be taken for credit without Ps. 424.

Ps. 423-424: For students of Chemistry and Physics who are interested in the application of physical methods to chemical problems, as well as in the phenomena in the border regions between Chemistry and Physics. First semester: osmosis; kinetic theory of gases; concentration of isotopes; specific heats and heats of combustions; mass spectrography. Second semester: molecular dipole moments as determined from dielectic measurements; molecular structures as determined from band spectra, Raman spectra, and X-ray and electron diffraction.

Ps. 424.—Chemical Physics. 3 hours. 3 credits. The second half of the course Ps. 423-424. May be taken for credit without Ps. 423.

GRADUATE COURSES

Prerequisites: A candidate showing proper aptitude and adequate preparation (ordinarily equivalent to an undergraduate major) will be admitted as a candidate for the master's degree.

A knowledge of the differential and integral calculus is prerequisite to all the following courses, together with Physics 321-322 or the equivalent.

Upon entering graduate study in Physics, the student should possess a reading knowledge of German and French.

Ps. 503.—Kinetic Theory of Gases. 3 hours. 3 credits. WILLIAMSON.

The elements of the kinetic theory, the application of the theory to gases and liquids, the electrical and magnetic properties of the molecules from the standpoint of the theory.

Ps. 505.—Theoretical Mechanics. 3 hours. 3 credits. BLESS.

Statics of systems of rigid bodies. Motions of particles and of rigid bodies under constant and variable forces. Assigned reading, problems, and reports.

Ps. 506.—Theoretical Mechanics. 3 hours. 3 credits. BLESS.

A continuation of Ps. 505. Introduction to vector analysis and generalized coördinates.

Ps. 508.—Thermodynamics. 3 hours. 3 credits. BLESS.

The laws of Thermodynamics, chemical reactions from the thermodynamical standpoint, Electrochemistry, and the Nernst Heat Theorem.

Ps. 510.—Physical Optics. 3 hours. 3 credits. WILLIAMSON. Prerequisite: Ps. 309 or equivalent.

The electro-magnetic theory of light applied to reflection, refraction, dispersion, and polarization.

Ps. 512.—Elements of Quantum Mechanics. 3 hours. 3 credits. WILLIAMSON.

Introduction to the theory of Quantum Mechanics, for students of Physics and Chemistry. It will follow the text by Dushman, which includes such mathematical material in the development as is necessary for students who have not had intensive mathematical training beyond the Calculus.

Ps. 513.—Advanced Experimental Physics. 6 or 8 hours laboratory. 3 or 4 credits. WILLIAMSON, BLESS, PERRY, KNOWLES, SWANSON. The first half of the course Ps. 513-514.

Ps. 513-514: A series of experiments on a particular topic of physics, a review of classical experiments, or the development of an assigned experimental problem. The work will be assigned to meet the needs and interests of the particular student.

Ps. 514.—Advanced Experimental Physics. 6 or 8 hours laboratory. 3 or 4 credits. WILLIAMSON, BLESS, PERRY, KNOWLES, SWANSON. The second half of the course Ps. 513-514.

Ps. 517.—Modern Physics. 3 hours. 3 credits. WILLIAMSON. The first half of the course Ps. 517-518.

Ps. 517-518: Electromagnetic theory, based on Maxwell's equations, the electronic theory of atomic structures, the interpretation of the properties of matter and radiation from the standpoint of this theory, spectroscopy, and nuclear physics.

Ps. 518.—Modern Physics. 3 hours. 3 credits. WILLIAMSON. The second half of the course Ps. 517-518.

Ps. 521.—X-Rays. 3 hours. 3 credits. BLESS. The first half of the course Ps. 521-522.

The work is devoted to classroom discussion of the theoretical aspects of X-rays. The following topics are treated: The passage of electricity through evacuated tubes, the photoelectric effect, the Bohr Theory, the production and properties of X-rays, and the applications of X-rays to physics, chemistry and biology.

Ps. 522.—X-Rays. 3 hours. 3 credits. BLESS. The second half of the course Ps. 521-522.

The work is chiefly experimental. The laboratory work is designed to suit the interests of the individual student.

Ps. 523.—Seminar in Modern Theory. 2 or 3 hours. 2 or 3 credits. STAFF. The first half of the course Ps. 523-524.

Ps. 523-524: Some particular phase of the most recent developments in theoretical physics is taken up in detail.

Ps. 524.—Seminar in Modern Theory. 2 or 3 hours. 2 or 3 credits. STAFF. The second half of the course Ps. 523-524.

PLANT PATHOLOGY

Prerequisites to any course in Plant Pathology are Bty. 303 and 304.

Pt. 321.—Plant Pathology. 1 hour, and 4 hours laboratory. 3 credits. WEBER. Prerequisite to courses in Plant Pathology except Pt. 325.

Presents a conception of (a) plant diseases caused by mechanical injury, environmental factors, parasitic bacteria, fungi and other plants; (b) life cycles and role of parasitic fungi and bacteria; (c) the economic importance and control of plant disease.

Pt. 322.—Vegetable Diseases. 1 hour, and 4 hours laboratory. 3 credits. WEBER.

A study of the most destructive diseases of tomatoes, potatoes, celery, peppers, cucumbers, and other vegetable crops grown in Florida and recognition of vegetable diseases occurring elsewhere.

Pt. 325.—Forest Pathology. 1 hour, and 4 hours laboratory. 3 credits. WEBER.

Designed to acquaint Forestry students with fundamentals of plant diseases in the field of Forestry.

Pt. 423.—Fruit Diseases. 1 hour, and 4 hours laboratory. 3 credits. WEBER.

A detailed study of diseases of citrus and an acquaintance with diseases of certain subtropical fruits and peach, pear, apple, grape, cherry, plum, and other fruit crops in the United States.

Pt. 424.—Field Crop Diseases. 1 hour, and 4 hours laboratory. 3 credits. WEBER.

A study of the diseases of the principal crops such as sugar cane, cotton, tobacco, peanuts, corn. soybeans, etc., their identification, cause and control.

Pt. 434.—Mycology. 1 hour, and 4 hours laboratory. 3 credits. WEBER.

The classification of saprophytic and parasitic fungi based on their structure and form.

GRADUATE COURSES

Prerequisites:

(1) Bachelor's degree.

(2) Thirty semester hours in biological sciences, 15 of which should be in botany.

(3) Pt. 321 or equivalent.

Pt. 523.—Advanced Plant Pathology. 1 or 2 hours, and 4 or 8 hours laboratory. 3 to 6 credits. WEBER.

A study of the diseases of crop plants and the organisms causing them.

Pt. 570.—Research in Plant Pathology. 1 or 2 hours, and 4 or 8 hours laboratory. 3 to 6 credits. WEBER.

A study of methods of research in Plant Pathology, including life histories of parasitic organisms in relation to the host plant and environmental factors influencing the development of disease.

POLITICAL SCIENCE

Pcl. 241.—Political Foundations of Modern Life. Offered each semester. 4 hours. 4 credits. LAIRD. Prerequisite: C-1. Prerequisite to advanced courses. in Political Science. (Formerly CPl. 13.)

An examination of the principles and practices of our political institutions; how government functions in the United States; what information can be drawn from the practices of other countries.

Pcl. 309.—International Relations. 3 hours. 3 credits. CARLETON. The first half of the course Pcl. 309-310.

Pcl. 309-310: The nature of international relations, nationalism, imperialism, militarism, armaments; history of international relations; foreign policies; function and problems of democracy; international organization; the League of Nations and the World Court.

Pcl. 310.—International Relations. 3 hours. 3 credits. CARLETON. The second half of the course Pcl. 309-310.

Pcl. 311.—American State and Municipal Administration. 3 hours. 3 credits. The first half of the course Pcl. 311-312.

Pcl. 311-312: A critical study of state administration with problems embracing that of Florida.

Pcl. 312.—American State and Municipal Administration. 3 hours. 3 credits. The second half of the course Pcl. 311-312.

Pcl. 313.—American Government and Politics. 3 hours. 3 credits. PAYNE. The first half of the course Pcl. 313-314.

Pcl. 313-314: First semester: A study of the structure and function of the federal government. Second semester: A study of state, county, and municipal governments. This course is a prerequisite for other courses in Political Science and for students not entering the Upper Division from the University College.

Pcl. 314.—American Government and Politics. 3 hours. 3 credits. PAYNE. The second half of the course Pcl. 313-314.

Pcl. 401.—American Constitutional Law. 3 hours. 3 credits. LEAKE. The first half of the course Pcl. 401-402.

Pcl. 401-402: A complete study and analysis of the Federal Constitution, with study and briefing of leading cases in constitutional law.

Pcl. 402.—American Constitutional Law. 3 hours. 3 credits. LEAKE. The second half of the course Pcl. 401-402.

Pcl. 403.—International Law. 3 hours. 3 credits. LAIRD. The first half of the course Pcl. 403-404.

Pcl. 403-404: The law of peace; case study of the application of international law in national courts; the subjects and objects of international law. Case study of the so-called law of war and the law of neutrality.

Pcl. 404.—International Law. 3 hours. 3 credits. LAIRD. The second half of the course Pcl. 403-404.

Pcl. 405.—History of Political Theory. 3 hours. 3 credits. LAIRD. The first half of the course Pcl. 405-406.

Pcl. 405-406: History of ancient, medieval, and modern political theories.

Pcl. 406.—History of Political Theory. 3 hours. 3 credits. LAIRD. The second half of the course Pcl. 405-406.

Pcl. 407.—Comparative Government. 3 hours. 3 credits. LAIRD. The first half of the course Pcl. 407-408.

Pcl. 407-408: Government of England, the British Commonwealth, France, Germany, Italy and Russia.

Pcl. 408.—Comparative Government. 3 hours. 3 credits. LAIRD. The second half of the course Pcl. 407-408.

Pcl. 409.—American Foreign Policy. 3 hours. 3 credits. LAIRD.

Pcl. 411.—Public Administration. 3 hours. 3 credits. LAIRD. The first half of the course Pcl. 411-412.

Pcl. 412.—Public Administration. 3 hours. 3 credits. LAIRD. The second half of the course Pcl. 411-412.

GRADUATE COURSES

Prerequisites: An undergraduate major of twenty-four semester hours or equivalent. It is very desirable that the student should begin his graduate work with a reading knowledge of one foreign language, preferably French or German, especially if he intends to go on to the work for the Ph.D. degree.

Pcl. 501.—American Constiutional Law. 3 hours. 3 credits. LEAKE. The first half of the course Pcl. 501-502.

Pcl. 502.—American Constitutional Law. 3 hours. 3 credits. LEAKE. The second half of the course Pcl. 501-502.

Pcl. 503.—International Law. 3 hours. 3 credits. DAUER. The first half of the course Pcl. 503-504.

Pcl. 504.—International Law. 3 hours. 3 credits. DAUER. The second half of the course Pcl. 503-504.

Pcl. 505.—Political Theory. 3 hours. 3 credits. DAUER. The first half of the course Pcl. 505-506.

Pcl. 506.—Political Theory. 3 hours. 3 credits. DAUER. The second half of the course Pcl. 505-506.

Pcl. 507.—Comparative Government. 3 hours. 3 credits. DAUER. The first half of the course Pcl. 507-508.

Pcl. 508.—Comparative Government. 3 hours. 3 credits. DAUER. The second half of the course Pcl. 507-508.

Pcl. 509.—International Relations. 3 hours. 3 credits. CARLETON. The first half of the course Pcl. 509-510.

Pcl. 510.—International Relations. 3 hours. 3 credits. CARLETON. The second half of the course Pcl. 509-510.

Pcl. 513.—Seminar. 2 hours. 3 credits. DAUER. The first half of the course Pcl. 513-514.

Pcl. 514.—Seminar. 2 hours. 3 credits. DAUER. The second half of the course Pcl. 513-514.

Pcl. 521.—Public Administration. 3 hours. 3 credits. LAIRD. The first half of the course Pcl. 521-522.

Pcl. 522.—Public Administration. 3 hours. 3 credits. LAIRD. The second half of the course Pcl. 521-522.

PORTUGUESE

Pe. 33.—First-Year Portuguese. 3 hours. 3 credits. ATKIN. The first half of the course Pe. 33-34. Open to students who have had no previous work in Portuguese.

Pe. 33-34: A beginning course. Its objective is a moderate proficiency in reading and speaking the language. Brazilian usage is emphasized.

Pe. 34.—First-Year Portuguese. 3 hours. 3 credits. ATKIN. The second half of the course Pe. 33-34.

Pe. 201.—Second-Year Portuguese. 3 hours. 3 credits. ATKIN. The first half of the course Pe. 201-202. Prerequisite: CPe. 34 or the equivalent.

Pe. 201-202: Reading of prose selections of moderate difficulty; continued practice in conversation. Brazilian usage is emphasized.

Pe. 202.—Second Year Portuguese. 3 hours. 3 credits. ATKIN. The second half of the course Pe. 201-202. Prerequisite: Pe. 201; but in special instances Pe. 201 may be taken—with permission of the instructor—even though the student has not had Pe. 201.

POULTRY HUSBANDRY

Py. 301.—Fundamentals in Poultry Production. 2 hours, and 2 hours laboratory. 3 credits. MEHRHOF, MOORE, EMMEL.

Economic importance of the industry; breeds and varieties; principles of production and exhibition judging; location and construction of buildings; breeding; hatching; brooding; rearing pullets; managing layers; feeding; marketing; diseases. One or more field trips to commercial poultry farms.

Py. 312.—Advanced Incubation, Brooding, and Rearing. 2 hours, and 2 hours laboratory. 3 credits. MOORE.

A study of the embryology of the chick, different types of hatchery equipment; incubation principles and practices; brooding equipment; methods of brooding chicks; rearing pullets; and caponizing. Chick sexing and judging. One or more field trips to hatcheries, broiler plants and poultry farms.

Py. 415.—Poultry Management. 2 hours, and 2 hours laboratory. 3 credits. MEHRHOF. Prerequisite: Py. 301 or 3 hours in any other poultry husbandry course.

Systematic study of poultry farming; types, farm layouts, successful poultry farms, cost and returns in egg production, factors relating to costs and returns in egg production and investment. One or more field trips to commercial poultry farms.

Py. 416.—Poultry Management. 2 hours, and 2 hours laboratory. 3 credits. MEHRHOF. Prerequisite: Py. 301 or 3 hours in any other poultry husbandry course.

Hatchery management: location, plans, investment, cost of producing chicks, factors affecting cost of baby chicks. Broiler production: equipment and designs of broiler plants, management of broilers; costs and returns of broiler production, factors affecting costs and investments. Pullet production: layout of pullet ranges, costs and returns in rearing pullets; factors affecting cost of production. One or more field trips to hatcheries, broiler plants, and commercial poultry farms.

Py. 417.—Marketing Poultry Products. Offered only in the second semester. 2 hours, and 2 hours laboratory. 3 credits. MOORE.

Preparation of eggs and poultry for market; grading, packing and storing of eggs and poultry. Study of egg and meat quality; judging eggs. Field trip to poultry markets.

Py. 427.—Advanced Poultry Judging and Poultry Breeding. 2 hours, and 2 hours laboratory. 3 credits. MOORE.

Study of classification and points of excellence. Theory and practice of judging birds for egg production and exhibition. Principles of genetics applied to poultry; the laws of heredity governing standard and production characters in poultry. Methods and practices of breeding and analysis of records. One or more trips to poultry shows and poultry breeding farms.

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*Not offered in 1945-46.

Py. 429.—Problems in Poultry Production. 1 to 4 credits. MEHRHOF. The first half of the course Py. 429-430. Prerequisite: Permission of instructor.

Py. 429-430: Qualified students may choose a topic or problem for study. Problems that may be selected are housing and equipment, feeding, breeding, marketing, and management. Type and scope of work determine credits allowed.

Py. 430.—Problems in Poultry Production. 1 to 4 credits. MEHRHOF. The second half of the course Py. 429-430.

GRADUATE COURSES

Py. 531.—Advanced Poultry Management. 3 hours. 3 credits. MEHRHOF.

A study of the economic organization and management of poultry farms in Florida; a study and analysis of poultry farm records.

Py. 570.—Poultry Research Problems. 1 to 4 credits. MEHRHOF.

PSYCHOLOGY

In general, Psy. 201, or its equivalent, will be prerequisite for all other courses in the department. The undergraduate major for students in the College of Arts and Sciences will usually include Psy. 201, 304, 309, 310, 401 or 402 and three additional courses. Exceptions to these requirements may be made only with the approval of the head of the department.

Psy. 201.—General Psychology. 3 hours. 3 credits. STAFF.

An elementary treatment of the general topics in the field of Psychology. Designed to provide an understanding of human behavior, approached as a natural phenomenon subject to scientific study. The unifying concept of the course is the adaptation of the individual to his physical and social environment.

Psy. 303.—Physiological Psychology. 2 hours, and 2 hours laboratory. 3 credits. WILLIAMS.

Lectures and laboratory work on the brain, spinal cord and nerves; muscles; glands; sense organs; and structure-functional relations. Designed and taught primarily for premedical and predental students and for students interested in neurology.

Psy. 304.—Experimental Psychology. 4 hours. 3 credits. WILLIAMS.

Methods of psychological investigation; individual differences, reactions, work and fatigue, sensations, perceptions, illusions, images, memory, attention, learning, judgments.

Psy. 305.—Social Psychology. 3 hours. 3 credits. WILLIAMS.

Influence of the social environment upon the mental, social, moral and emotional development of the child, the adolescent, and the adult. General orientation, typical and atypical forms of behavior, social stimulations and responses, social attitudes, social adjustments, language development, personality development, and social changes.

Psy. 306.—Applied Psychology. 3 hours. 3 credits. WILLIAMS.

Application of the principles and methods of psychology to the major problems in human relations. Application to business and industry, studies in the selection of personnel, employment, job analysis, effect of conditions of work, and methods of work on productivity. Psychological factors in advertising and selling. Problems of human motivation, individual differences, and personality.

Psy. 307.—Legal Psychology. 3 hours. 3 credits. WILLIAMS.

Application of the principles and methods of psychological thinking to problems in the legal field. Effect of sensation, perception, attention, memory, suggestion on the validity of testimony. Methods of obtaining and evaluating testimony. Psychological methods of detecting guilt. Mental disorder and mental defect in relation to legal problems of responsibility and crime. Problems in the psychology of delinquency. The judge, jury and lawyer as psychological individuals.

Psy. 309.—Personality Development. 3 hours. 3 credits. HINCKLEY.

A study of the mechanisms of personality formation, with special emphasis upon the varieties of human adjustment. The more inevitable problems of human life with their normal and abnormal solutions. The origin and modification of behavior. Processes of motivation and adjustment. Development and measurement of personality traits. Techniques of mental hygiene.

Psy. 310.—Abnormal Psychology. 3 hours. 3 credits. HINCKLEY.

A study of the abnormal phases of mental life, and the ways by means of which the individual develops abnormal habits of thinking and acting. A survey of the signs of beginning maladjustment and procedures which should be followed to correct these tendencies. Special suggestions are given for the prevention and treatment of mental disease.

Psy. 312.—Psychology of Exceptional Children. 3 hours. 3 credits. WILLIAMS.

Individual differences, intelligence, feeble-mindedness, dull and backward children, superior and gifted children, speech and motor defects, sensory and neurological disorders, conduct problems, social and emotional maladjustments, and other topics concerning exceptional and mentally peculiar children.

Psy. 314.—History and Systems of Psychology. 3 hours. 3 credits. WILLIAMS.

A critical survey of the historical development of psychology from the early Greek period, with special emphasis on the contributions of the Germans, the French, the English, and representative writers as Aristotle, Descartes, Hobbes, Locke, the Mills, Fechner, Wundt, Binet, James and many others. The more recent trends, schools and systems as Structuralism, Functionalism, Behaviorism, and Gestalt Psychology.

Psy. 401.—Readings in Experimental Psychology. 3 hours. 3 credits. THOMPSON. It is advisable that this course be followed by Psy. 402.

A consideration of experimental literature in the fields of retention, conditioned response, learning, transfer of training, feeling, emotion, reaction time, and association.

Psy. 402.—Readings in Experimental Psychology. 3 hours. 3 credits. THOMPSON. While not a prerequisite, it is advisable that Psy. 401 precede this course.

A consideration of experimental literature in the fields of psychophysics, sensation, perception of form, color and space, attention, problem-solving, and the higher thought processes.

Psy. 405.—Psychological Measurement. 2 hours, and 2 hours laboratory. 3 credits. HINCKLEY. Prerequisite: CEs. 15 and permission of the instructor.

Quantitative methods of experimental psychology; collection and treatment of data; correlation; prediction. History of testing, nature of measurement, characteristics of groups, reliability of tests and the concept of correlation, validity, item analysis. Practice in the construction of psychological tests.

Psy. 406.—Psychological Tests. 2 hours, and 2 hours laboratory. 3 credits. HINCKLEY.

Tests of general intelligence, special aptitudes, personality traits, and business ability; organization and administration; methods and results; practical use of tests.

Psy. 408.—Comparative Psychology. 3 hours. 3 credits. THOMPSON.

A survey course over the areas of animal behavior. The phylogenetic development of behavior; principles discernible in the behavior of inframammalian animals; prerequisites to behavior dominated by modifiability. The nature of modifications in behavior (Class Mammalia).

Psy. 409.—Human Motivation. 3 hours. 3 credits. HINCKLEY. Prerequisite: Psy. 309.

A detailed account of the factors underlying human motivation approached from both the physiological and the psychological viewpoints.

Psy. 410.—Advanced Abnormal Psychology. 3 hours. 3 credits. HINCKLEY. Prerequisite: Psy. 310.

Lectures and readings on the various forms of mental disease, with attention to causes, diagnosis, symptoms, and treatment. Psychiatric information for social workers and school psychologists.

Psy. 411.—Neural Mechanisms in Behavior. 3 hours. 3 credits. THOMPSON.

The relation of behavioral phenomena to the principles of nerve physiology. Simple nerve physiology; reflex physiology; nueral integration; conditioning; brain functions in learning; results from electro-encephalography.

Psy. 424.—Sensation. 3 hours. 3 credits. HINCKLEY.

A presentation and interpretation of the experimental evidence in the field of sensation.

Psy. 430.—Individual Work. Variable credit. STAFF.

Provision will be made for students who desire work in fields not covered by the current course offerings. Such work will consist of directed study supplemented by frequent individual conferences. Students should arrange for this course with the Head of the Department.

GRADUATE COURSES

Prerequisites: Twenty-four semester hours in psychology and related fields, of which at least twelve semester hours must be in psychology.

Graduate courses in the Department of Psychology are offered in conjunction with advanced undergraduate courses carrying the same titles. A significant part of the student's work in these graduate courses will involve extensive and directed individual study of source materials such as journal articles and other appropriate writings. The student will be required to abstract a definite amount of this material for each graduate course in which he is registered.

A qualifying examination will be required of each student working toward the master's degree with a major in psychology. This examination will be given by the student's supervisory committee, usually after the completion of approximately one-half of his required course work.

Psy. 501.—Readings in Experimental Psychology. 3 hours. 3 credits. THOMPSON.

Psy. 502.—Readings in Experimental Psychology. 3 hours. 3 credits. THOMPSON.

Psy. 505.—Psychological Measurement. 2 hours, and 2 hours laboratory. 3 credits. HINCKLEY.

Psy. 506.—Psychological Tests. 2 hours, and 2 hours laboratory. 3 credits. HINCKLEY.

Psy. 508.—Comparative Psychology. 3 hours. 3 credits. THOMPSON.

Psy. 509.—Human Motivation. 3 hours. 3 credits. HINCKLEY.

Psy. 510.—Advanced Abnormal Psychology. 3 hours. 3 credits. HINCKLEY.

Psy. 511.—Neural Mechanisms in Behavior. 3 hours. 3 credits. THOMPSON.

Psy. 512.—Psychology of Exceptional Children. 3 hours. 3 credits. WILLIAMS.

Psy. 513.—Specific Clinical Patterns. 3 hours. 3 credits. WILLIAMS.

Psy. 514.—History and Systems of Psychology. 3 hours. 3 credits. WILLIAMS.

Psy. 515.—Social Psychology. 3 hours. 3 credits. WILLIAMS.

Psy. 524.—Sensation. 3 hours. 3 credits. HINCKLEY.

Psy. 530.—Individual Work. Variable credit. STAFF.

SOCIOLOGY

Sy. 241.—Sociological Foundations of Modern Life. 4 hours. 4 credits. Prerequite: C-1. (Formerly CSy. 13.)

The outlook for the individual in the modern world. Direct measurement of social credits of invention and technological change in modern America. The effects of the metropolitan epoch on social institutions. A review of the American regions as cultural environments and challenges

Sy. 316.—The Field of Social Work. 3 hours. 3 credits.

Administrative and promotional social work. Detailed study of the growth of public social work agencies, 1930-1941. Study of casework techniques, of the range of duties of social workers in modern public and private administration. Field analysis of public welfare agencies in Florida.

Sy. 317.—Methods in Social Work. 2 hours, and 2 hours field work. 3 credits.

Intended primarily for extension teaching. An advanced survey of methods of dealing with the problems of field casework and of social work administration.

Sy. 322.—The Child in American Society. 3 hours. 3 credits.

A study of the social adjustment of children in a changing world. Factual study of social situations in American life as they affect children. Emphasis is upon the adjustment and development of the normal child, with attention to the problems of abnormal and maladjusted children. The course provides factual sociological materials designed to supplement, rather than to duplicate, parallel courses in Education and Psychology.

Sy. 332.—Public Health and Sanitation. 3 hours. 3 credits.

Brief history of public health measures from ancient to modern times. Fundamental relation of man to his microbic enemies and physical environment. Sanitation. Organization, powers, functions, and accomplishments of special health departments: federal, state and local agencies.

Sy. 337.—Cultural Anthropology. 3 hours. 3 credits.

Physical anthropology: physical characteristics of prehistoric and modern man; race distinction; distribution of races; a critical analysis of racial theories--Aryanism, Nordicism, Nazism. Archaeology. Cultural anthropology: the development of culture: a comparative study of representative cultures. The American Indian. The Timucua and Seminole Indians of Florida.

Sy. 344.—Marriage and the Family. 3 hours. 3 credits.

The nature and development of domestic institutions. Problems of adjustment to modern conditions. Changes in marital and domestic relations with particular emphasis on preparation for marriage. The status of women and laws pertaining to marriage in Florida. Divorce, family disorganization, child training.

Sy. 364.—Latin American Civilization. 3 hours. 3 credits.

A lecture course with collateral reading. Emphasis on present social forces of the entire continent with regard to the future development of civilization in the regions.

Sy. 421.—Rural Sociology. 3 hours. 3 credits.

American rural life and the changing regions. Major trends in relation to resources and problems. Leadership and development in the new order. Rural social and economic planning, pro and con. The rural resources of Florida.

Sy. 424.—Criminology. 3 hours. 3 credits.

Nature and causes of crime; punishment, treatment, prevention. Sociological aspects of criminal law and procedure.

Sy. 426.—The City in American Life. 3 hours. 3 credits.

A study of the rising cities of America in their effects upon individuals and social institutions. Cultural change in American life as related to the sweep of invention and the dominance of the metropolitan region. The cities of 1940 are examined as centers of social change and of challenge to education, government, and other group realities. The principles of city and regional planning are reviewed via case studies of cities, and criticized in relation to their demands upon citizenship.

Sy. 441.—Advanced Social Theory. 3 hours. 3 credits.

Sy. 442.—Applied Sociology. 3 hours. 3 credits.

Theories developed in previous courses applied to a long-term program of improvement. Social investigation as the basis of social planning. Outstanding achievements in Europe and America

Sy. 443.—The American Negro. 3 hours. 3 credits.

Social, economic, and political aspects of racial problems in the United States with particular emphasis on the American negro. Brief history of the negro from early days of slavery to the present. Contrast between the cultures of the whites and the negroes in the North and South. Racial segregation and discrimination. The role of the negro in southern culture today.

Sy. 447.—Social Research and Investigation. 3 hours. 3 credits.

The study and application of current methods of research in sociology. Study of procedures and organization of research organizations at work in the United States.

Sy. 450.—Population and Public Affairs. 3 hours. 3 credits.

A study of the dramatic social effects of population changes in the modern world. The problems created by the rapid current changes in American population and a survey of methods of studying the relation of population changes and social trends.

Sy. 452.—American Culture Today. 3 hours. 3 credits.

Advanced study of the regional patterns of social reality in modern America. Close analysis of leading questions of public policy as affected by population trends, technological changes and cultural adjustments. Readings in major concerns of American citizenship, with emphasis upon the role of higher education, of the professions and of public opinion in a metropolitan epoch.

Sy. 490.—The South Today. 3 hours. 3 credits.

The social resources and challenges of the modern South. Measures of southern culture. The place of the South in the nation. Programs and plans for the region reviewed. A broad view of the foundations of southern life.

GRADUATE COURSES

Prerequisites (or corequisites in part): Twenty-four hours in Sociology or related fields, of which at least twelve must be in Sociology.

Graduate courses in sociology are offered in conjunction with advanced undergraduate courses bearing the same title. The single exception is Sy. 548, Community Organization. Graduate credit is dependent upon extensive reading and original work at a level above that of undergraduate students. Familiarity with appropriate monographic materials and with publications in professional journals will be expected.

Each student registered as a graduate major in sociology will be required to pass a qualifying examination, given by his Supervisory Committee usually during the first semester of registration as a graduate student.

Sy. 511.—Problems of Child Welfare. 3 hours. 3 credits.

Sy. 515.—Social Legislation. 3 hours. 3 credits.

Sy. 516.—Introduction to Social Work. 3 hours. 3 credits.

Sy. 517.—Methods in Social Work. 3 hours. 3 credits.

Sy. 521.—Rural Sociology. 3 hours. 3 credits.

Sy. 522.—The Child in American Society. 3 hours. 3 credits.

Sy. 523.—Social Disorganization. 3 hours. 3 credits.

Sy. 524.—Criminology. 3 hours. 3 credits.

Sy. 526.—The City in American Life. 3 hours. 3 credits.

Sy. 531.—Development of Social Thought. 3 hours. 3 credits.

Sy. 544.—Marriage and the Family. 3 hours. 3 credits.

Sy. 548.—Community Organization. 3 hours. 3 credits.

Designed for advanced students in sociology, education and those planning for social work. The course will analyze (a) the patterns of social organization in the American community today; (b) the techniques and procedures followed in developing formal organization for the modern community, and (c) problems of organization and integration of social services in Florida communities at the time when the course is offered.

Sy. 550.—Population and Public Affairs. 3 hours. 3 credits.

Sy. 552.—American Culture Today. 3 hours. 3 credits.

Sy. 560.—Special Topics. 3 hours. 3 credits.

Special topics in Sociology by arrangement with the instructor.

Sy. 570.—Social Research. 3 hours. 3 credits.

Sy. 590.—The South Today. 3 hours. 3 credits.

SOILS

Sls. 301.—Soils. 2 hours, and 2 hours laboratory. 3 credits. THORNTON. Prerequisites: Acy. 125-126 or Cy. 101-102.

The nature and properties of soils with elementary treatment of genesis, morphology and classification. Soil types and problems in Florida.

Sls. 302.—Soil Fertility. 2 hours, and 2 hours laboratory. 3 credits. THORNTON. Prerequisite: Sls. 301.

General principles of soil fertility. The physical, chemical and biological factors affecting soil fertility and crop production. Studies on samples of soil from the home farm; commercial fertilizers, manures, green manures and organic matter maintenance, crop rotations and permanent soil fertility.

Sls. 304.—Soil Surveying. 1 hour lecture, 4 hours laboratory. 3 credits. HENDERSON. Prerequisite: Sls. 301.

Methods of the soil survey, soil maps and survey reports. Sampling the soil profile and studying soil type characteristics. Detailed survey and mapping of an assigned area.

Sls. 401.—Soil Morphology and Classification. 1 hour, and 4 hours laboratory. 3 credits. HENDERSON. Prerequisite: Sls. 301.

Soil genesis, morphology and classification including mapping; physical and chemical composition and reactivity of the important soils of Florida and of the United States in relation to their proper management as land surface units.

Sls. 402.—Advanced Soil Fertility. 2 hours. 2 hours laboratory. 3 credits. HENDERSON. Prerequisite: Sls. 302.

Soil and plant relationships especially from the standpoint of normal growth under field conditions; interrelationships of chemistry, physics and microbiology; mineral and organic balance, the role of trace elements; deficiency symptoms; quality production; fertilizer materials; placement and cultural relationships.

Sls. 405.—Soil Microbiology. 3 hours. 3 credits. SMITH, F. B. Prerequisites or corequisites: Sls. 302 and Bcy. 301.

Occurrence and activities of soil microorganisms and their influence on soil fertility.

Sls. 406.—Soils and Fertilizers. 2 hours lectures, 2 hours laboratory. 3 credits. THORNTON. Prerequisites: Sls. 301 and 302.

The use of commercial fertilizers with reference to their effects on soils, methods of application and crop response. The development, growth and manufacture of commercial fertilizers. Laboratory work will consist of mixing and applying fertilizers and visits to fertilizer plants where the student will observe commercial practices in mixing and handling.

Sls. 407.—Soil Physics. 2 hours lecture, 2 hours laboratory. 3 credits. HENDERSON. Prerequisite: Sls. 301.

Physical properties of the soil and their relation to the chemical reactions and biological functions in the soil, water and air movement. Soil structure and consistence are studied in detail. Instruction in the use of physical appliances in the field of soils.

Sls. 408.—Soil and Water Conservation. Identical with Ag. 408. 2 hours, and 2 hours aboratory. 3 credits. HENDERSON and ROGERS, F. Prerequisites: Sls. 301, Ag. 301. Prerequisite or corequisite: Sls. 302.

The social and economic aspects of soil deterioration. Principles involved in soil conservation, and methods of control as applied to Florida, will be carefully developed. Given jointly with the Department of Agricultural Engineering.

Sls. 420.—Special Problems in Soils. 2 to 6 hours. 1 to 3 credits. HENDERSON and THORNTON.

Research problems in soils for qualified students in all departments of the College of Agriculture.

GRADUATE COURSES

Prerequisites: A student who expects to pursue graduate work in the Soils Department should present the bachelor's degree from a recognized College of Agriculture, with a major in Soils, or the equivalent in other sciences. This would ordinarily mean at least twenty hours, or its equivalent, of undergraduate work in the department. The student will be held responsible for such basic undergraduate courses as are deemed necessary for the pursuit of his special project.

Sls. 501.—Advanced Soil Microbiology. 1 hour and 4 hours laboratory. 3 credits. SMITH, F. B.

Qualitative, quantitative and functional studies of the soil micro-flora under field and laboratory conditions on both mineral and organic soils, including virgin soils, in relation to type, conditions of cultivation and fertility; elemental metabolism of the more important organisms, especially in terms of trace elements; climatic influences.

Sls. 502.—Soil Chemistry. 1 hour and 4 hours laboratory. 3 credits. SMITH, F. B.

Analysis of soils and related materials in terms of common and trace elements in relation to various conditions: related composition of plants, composition of fertilizers and fertilizer materials; chemical behavior of soil components; methods of analysis and study.

Sls. 570.—Research in Soils. 1 to 6 hours. 1 to 6 credits. STAFF.

SPANISH

IMPORTANT: With the exception of Sh. 33-34 and Sh. 201-202, all the courses in Spanish may be taken either semester for credit. In special instances Sh. 202 may by taken—with permission of the instructor—even though the student has not had Sh. 201. In all other courses the first semester is not a prerequisite for the second semester.

Sh. 33.—First-Year Spanish. 3 hours. 3 credits. ASHTON, HAUPTMANN, TRUJILLO. The first half of the course Sh. 33-34. Open to those students who have had no previous work in Spanish.

Sh. 33-34: A beginning course basic for further study. The objectives are the ability to read easy Spanish and to understand the spoken language.

Sh. 34.—First-Year Spanish. 3 hours. 3 credits. ASHTON, HAUPTMANN, TRUJILLO. The second half of the course Sh. 33-34.

Sh. 35.—First-Year Spanish. 6 hours. 6 credits. ASHTON, HAUPTMANN. The entire first year of Spanish offered in one semester as an intensive course. Open to those students who have had no previous work in Spanish.

A beginning course basic for further study. The objectives are the ability to read easy Spanish and to understand the spoken language.

Sh. 201.—Second-Year Spanish. 3 hours. 3 credits. ASHTON, HAUPTMANN. The first half of the course Sh. 201-202. Prerequisite: Sh. 33-34 or equivalent.

Sh. 201-202: Readings in representative Spanish and Latin-American literature of moderate difficulty. Conversation practice.

Sh. 202.—Second-Year Spanish. 3 hours. 3 credits. ASHTON, HAUPTMANN. The second half of the course Sh. 201-202.

Sh. 205.—Second-Year Spanish. 6 hours. 6 credits. ASHTON, HAUPTMANN. The entire second year of Spanish offered in one semester as an intensive course. Prerequisite: Sh. 33-34 or equivalent.

Readings in representative Spanish and Latin-American literature of moderate difficulty. Conversation practice.

***Sh. 303.—Masterpieces of Spanish Literature.** 3 hours. 3 credits. HAUPTMANN. Prerequisite: Sh. 201-202 or permission of instructor.

Reading and discussion of such eminent writers as Juan Ruiz, Rojas, Cervantes, and Lope de Vega. (Provision will be made for those students who wish to study South American literature.)

***Sh. 304.—Masterpieces of Spanish Literature.** 3 hours. 3 credits. HAUPTMANN. Prerequisite: Sh. 201-202 or permission of instructor.

Reading and discussion of such eminent writers as Perez Galdos, and the Nobel Prize winners Echegaray and Benavente.

Sh. 313.—Advanced Composition and Conversation. 3 hours. 3 credits. ASHTON. The first half of the course Sh. 313-314. Prerequisite: Sh. 201-202 or permission of instructor.

Sh. 313-314: Training and practice in oral and written expression in Spanish.

Sh. 314.—Advanced Composition and Conversation. 3 hours. 3 credits. ASHTON. The second half of the course Sh. 313-314. Prerequisite: Sh. 201-202 or permission of instructor.

***Sh. 323.—Commercial Spanish.** Offered only in the second semester. 3 hours. 3 credits. HAUPTMANN. Prerequisite: Sh. 201-202 or permission of the instructor.

Writing of business letters, circulars, and advertisements, with special emphasis upon South American usages.

***Sh. 324.—Commercial Spanish.** 3 hours. 3 credits. HAUPTMANN. Prerequisite: Sh. 201-202 or permission of instructor.

Further attention to business letters, and a study of commercial documents and business practices, stress being placed on those of South America.

***Sh. 403.—Literature of the Golden Age.** 3 hours. 3 credits. HAUPTMANN. Prerequisite: Sh. 303-304 or permission of the instructor.

A study of the leading dramatists and prose writers of the sixteenth century.

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*Not offered in 1945-46.

*Sh. 404.—**Literature of the Golden Age.** 3 hours. 3 credits. HAUPTMANN. Prerequisite: Sh. 303-304 or permission of the instructor.

A study of the leading dramatists and prose writers of the seventeenth century.

*Sh. 405.—**Contemporary Spanish Literature.** 3 hours. 3 credits. HAUPTMANN. Prerequisite: Sh. 303-304 or permission of the instructor.

Lectures and readings in the leading writers of the late nineteenth century.

*Sh. 406.—**Contemporary Spanish Literature.** 3 hours. 3 credits. HAUPTMANN. Prerequisite: Sh. 303-304 or permission of the instructor.

Lectures and readings in the leading writers of the early twentieth century.

*Sh. 407.—**South American Literature.** 3 hours. 3 credits. ASHTON. Prerequisite: Sh. 303-304 or permission of instructor.

Reading of representative excerpts from Spanish-American Literature.

*Sh. 408.—**South American Literature.** 3 hours. 3 credits. ASHTON. Prerequisite: Sh. 303-304 or permission of instructor.

Outstanding authors and literary movements in Spanish America.

*Sh. 413.—**Phonetics.** 3 hours. 3 credits. HAUPTMANN. Prerequisite: Permission of the instructor.

Training and practice in the precise pronunciation of Spanish. Preliminary study of phonetics.

*Sh. 414.—**Phonetics.** 3 hours. 3 credits. HAUPTMANN. Prerequisite: Permission of the instructor.

Training and practice in the precise and fluent speaking of Spanish.

Sh. 423.—**The Teaching of Spanish.** 1 credit. TRUJILLO and others. Prerequisite: Permission of instructor.

A series of demonstrations and discussions on the theory and practice of teaching of Spanish in elementary and high schools.

Sh. 430.—**Individual Work.** Variable credit. HAUPTMANN, ASHTON.

Sh. 430 makes it possible for a student to study, for credit, certain phases of Spanish literature, language, and civilization for which there are no special course offerings. Through this means a student can complete an undergraduate major or graduate minor. Sh. 430 may be elected for additional credit in subsequent sessions. Students will be helped to plan a definite program, and will meet the instructor for frequent conferences.

GRADUATE COURSES

Prerequisites: Twenty-four hours, or equivalent, of undergraduate work in Spanish. This must include a year-course in composition and one in Spanish literature.

Sh. 501.—**Old Spanish.** 3 hours. 3 credits. HAUPTMANN. The first half of the course Sh. 501-502. Prerequisite: consent of instructor.

Sh. 501-502: Spanish Historical Grammar. Readings from 12th, 13th, and 14th centuries.

Sh. 502.—**Old Spanish.** 3 hours. 3 credits. HAUPTMANN. The second half of the course Sh. 501-502.

Sh. 503.—**Golden Age.** 3 hours. 3 credits. HAUPTMANN. The first half of the course Sh. 503-504. Prerequisite: consent of instructor.

Sh. 503-504: Lectures, readings, reports in 17th century literature.

Sh. 504.—**Golden Age.** 3 hours. 3 credits. HAUPTMANN. The second half of the course Sh. 503-504.

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*Not offered in 1945-46.

Sh. 505.—Contemporary Spanish Literature. 3 hours. 3 credits. HAUPTMANN. The first half of the course Sh. 505-506. Prerequisite: consent of instructor.

Sh. 505-506: A study of the generation of '98 and their predecessors. Lectures, readings, reports.

Sh. 506.—Contemporary Spanish Literature. 3 hours. 3 credits. HAUPTMANN. The second half of the course Sh. 505-506.

Sh. 509.—Contemporary Latin-American Literature. 3 hours. 3 credits. ASHTON.

Lectures and readings on principal literary figures and movements in Spanish America; primarily concerned with mutual influences operative in the Western Hemisphere.

Sh. 530.—Individual Work. Credit arranged. HAUPTMANN.

Sh. 530 makes it possible for a student to study, for credit, certain phases of Spanish literature, language, and civilization for which there are no special course offerings. Through this means a student can complete a graduate major or graduate minor. Sh. 530 may be elected for additional credit in subsequent sessions. Students will be helped to plan a definite program, and will meet the instructor for frequent conferences.

SPEECH

In addition to the courses below the Department of Speech maintains a Speech and Hearing Clinic which offers individual assistance to students desiring aid in overcoming speech defects. Applicants for this service should communicate as soon as possible with Professor Constans or Professor Hale.

Sch. 241.—Effective Speaking. Offered each semester. 3 hours. 3 credits. STAFF. Prerequisite: C-3. Prerequisite or corequisite to advanced courses in speech. (Formerly CSc. 33.)

Designed to aid the student through demonstration and practice to talk effectively to a group.

Sch. 301.—Advanced Public Speaking. Offered each semester. 3 hours. 3 credits. CONSTANS. Prerequisite: Sch. 241.

Structure, style, and delivery of speeches for formal occasions, with special emphasis on the psychology of audience persuasion. Practice in speaking before off-campus audiences.

Sch. 303.—Argumentation and Debating. 3 hours. 3 credits. Prerequisite or corequisite: Sch. 241.

A study of the principles of argumentation and their application to issues of current public interest, with special reference to the national varsity debate question. All students expecting to join the debate squad should take this course.

Sch. 304.—Argumentation and Debating. 3 hours. 3 credits. Prerequisite: Sch. 303.

A continuation of Sch. 303. This course is devoted to meeting the practical problems of debate.

Sch. 307.—Interpretation of Literature. 3 hours. 3 credits. HALE. Prerequisite or corequisite: Sch. 241.

Voice training: exercises for developing the effectiveness of the body and voice; oral reading of short stories and narrative poetry.

Sch. 308.—Interpretation of Literature. 3 hours. 3 credits. HALE. Prerequisite: Sch. 307, or consent of instructor.

Advanced oral interpretation of lyric poetry, dialect readings, novels, plays; arrangement and presentation of public programs.

Sch. 311.—Speech Training for the Radio. 4 hours. 3 credits. TEW and HALE. Prerequisite or corequisite: Sch. 241.

Study of vocal considerations for all uses of the microphone; writing and presentation of announcements, addresses, and radio continuity; preparation of radio drama.

Sch. 312.—Courtroom Speaking. 3 hours. 3 credits. CONSTANS. Prerequisite: Sch. 241.

Reading and analysis of courtroom speeches by famous lawyers, and presentation of original arguments based upon hypothetical cases. Designed primarily for students who contemplate entering Law. Hicks, *Famous American Jury Speeches.*

Sch. 314.—Types of Public Discussion. Offered only in the first semester. 3 hours. 3 credits. Prerequisite: Consent of instructor.

Study and practice in the principles and methods of group discussion. Special attention given to panel and open-forum discussion. How to use parliamentary procedure.

Sch. 315.—Applied Phonetics. 3 hours. 3 credits. HALE. Prerequisite: Consent of instructor.

A dynamic phonetic analysis of the sounds of speech; application to the individual's speech, to the study of dialects and foreign languages, and to remedial procedures in speech correction. Considerable practice in vocal performance and phonetic transcription using the IPA.

***Sch. 403.—One-Act Play.** 3 hours. 3 credits. CONSTANS. Prerequisite: Consent of instructor.

The one-act play as a type of drama; the reading and criticism of the best one-act plays by contemporary writers; the technique of play-writing.

Sch. 404.—Dramatic Production. 3 hours. 3 credits. TEW. Prerequisite: Consent of instructor.

Consideration of voice, line reading, and the principles of character interpretation; the problem of directing, stage equipment, costuming, lighting, and make-up. Rehearsal of plays.

***Sch. 405.—Famous American Speakers.** 3 hours. 3 credits. Prerequsite: Sch. 301, or Sch. 303.

Speeches of the greatest American authors studied against the background of their lives and the issues of their times, with special emphasis on present political speeches.

***Sch. 406.—Famous British Speakers.** 2 hours. 2 credits. Prerequisite: Sch. 301, or Sch. 303.

Speeches of the great British authors studied against the background of their lives and the issues of their times.

Sch. 410.—Scientific Bases of Speech. 3 hours. 3 credits. HALE and TEW. Prerequisite or corequisite: Consent of instructor.

A survey in certain related fields of the scientific material which is fundamental to an understanding of the normal speaking process and of speech abnormalities.

***Sch. 411.—Speech and Hearing.** 3 hours. 3 credits. HALE. Prerequisites: Sch. 410, and Sch. 315 or Sch. 417.

A study of the relationship between speech and hearing, the frequency of hearing losses and speech defects, the tests for hearing acuity, the speech therapies for the hearing handicapped, the methods of teaching speech reading.

Sch. 417.—Correction of Speech Defects. 3 hours. 3 credits. HALE. Prerequisite: Consent of instructor.

A beginning course in the recognition and correction of common speech defects; especially designed for teachers and those planning to enter the teaching profession. The problem of individual language difficulties and the diagnostic and corrective procedure in cases of lisping, indistinct enunciation, pitch and quality difficulties, and foreign accent will be presented. Observing and working with persons in the Speech Clinic.

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*Not offered in 1945-46.

Sch. 418.—Correction of Speech Defects. 3 hours. 3 credits. HALE. Prerequisite: Sch. 417 or consent of instructor.

A continuation of Sch. 417. The diagnostic and corrective procedure in cases of deafness, paralysis, emotional instability, stuttering, and delayed speech will be presented. Observing and working with persons in the Speech Clinic.

GRADUATE COURSES

Prerequisites: A student must have an undergraduate major consisting of twenty-four semester hours, or its equivalent as determined by the department. At least fifteen of these hours must be in Speech.

Not all courses are given each year. Some of the courses are offered in conjunction with advanced undergraduate courses bearing the same title.

Sch. 502.—Plays, Players, and Playwrights. 3 hours. 3 credits. CONSTANS.

A study of recent plays primarily from the point of view of production; the techniques of outstanding actors and playwrights.

Sch. 504.—Problems in Dramatic Production. 3 hours. 3 credits. TEW.

An advanced course in the problems of the play director; selecting, casting, rehearsing, and mounting the play. Designing and lighting of scenery. Participation in directing and producing plays.

***Sch. 505.—Seminar in American Oratory.** 3 hours. 3 credits.

Studies of the lives and speeches of noted American speakers with special reference to the changing character of compositional style and delivery. Particularlar attention will be paid to speeches on contemporary issues.

***Sch. 506.—Seminar in British Oratory.** 3 hours. 3 credits.

Speeches of the eighteenth century British debaters will be analyzed and compared with contemporary oratory. Special attention to the speeches of Burke, Fox, Pitt, Eden, Halifax, and Churchill.

Sch. 509.—Advanced Public Discussion and Debate. 3 hours. 3 credits.

A study of the principles of group discussion and debate and the function of the participants. The objectives of educational forensics and the methods used in attaining them.

Sch. 510.—Scientific Bases of Speech. 3 hours. 3 credits. HALE and TEW.

A survey in certain related fields of the scientific material which is basic to an understanding of the normal speech process and speech abnormalities.

***Sch. 511.—Seminar in Hearing.** 3 hours. 3 credits. HALE.

Normal and abnormal hearing function; methods of testing hearing; use of hearing aids; speech therapy for the hard of hearing; speech reading techniques. Clinical practice.

***Sch. 512.—Seminar in Stuttering.** 3 hours. 3 credits. HALE.

An impartial presentation of the theories of the etiology and therapy of stuttering. Clinical practice.

Sch. 515.—Applied Phonetics. 3 hours. 3 credits. HALE.

Application of phonetic analysis of speech sounds to dialects, foreign languages, and remedial speech procedures. Use of recordings and narrow phonetic transcriptions in the preparation of a dialect manual.

Sch. 517.—Speech Correction. 3 hours. 3 credits. HALE.

Problems of articulation, vocal pitch and quality, foreign accent; preparation of a working manual. Clinical practice.

Sch. 518.—Advanced Speech Correction. 3 hours. 3 credits. HALE.

A study of the pathologies of speech, methods of diagnosis and testing, procedures in clinical organizations. A practical program to meet the needs of a given clinical area will be prepared. Clinical practice.

Sch. 520.—Experimental Problems in Speech. 3 hours. 3 credits.

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*Not offered in 1945-46.

VETERINARY SCIENCE

Vy. 301.—Veterinary Anatomy and Physiology. 2 hours, and 2 hours laboratory. 3 credits. SHEALY.

The skeleton; articulations; muscles; circulatory, digestive, urinogenital, respiratory, and nervous systems; endocrine glands; special senses.

Vy. 401.—Livestock Diseases and Farm Sanitation. 2 hours. 2 credits. SHEALY.

Control of the principal diseases of farm animals; dehorning, castration, restraint, and practical methods of farm sanitation.

Vy. 402.—Poultry Diseases. 2 hours. 2 credits. EMMEL.

Causes, symptoms, methods of prevention, and treatment of diseases of poultry.

GRADUATE COURSES

Vy. 543.—Problems in Animal Pathology. 1 to 4 credits. EMMEL.

Vy. 545.—Problems in Animal Parasitology. 1 to 4 credits. SWANSON.

Two Year, Non-Degree Curricula

in

Agriculture

for

Veterans

THE UNIVERSITY RECORD
of the
UNIVERSITY OF FLORIDA

Vol. XL, Series 1 No. 7 August 1, 1945

Published monthly by the University of Florida, Gainesville, Florida
Entered in the post office in Gainesville, Florida, as second-class matter, under Act of Congress, August 24, 1912
Office of Publication, Gainesville, Florida

On the Cover—

Three fine heifers form the nucleus of a Guernsey herd at the Florida Experiment Station. President John J. Tigert, right center, and Agricultural College Dean H. Harold Hume, left center, inspecting the animals, which are held by students.

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INFORMATION FOR VETERANS

As demobilization accelerates, more and more ex-service men will enter college, some to begin college work, some to resume interrupted programs and others to seek special types of training for specific jobs. In so far as its facilities permit, the University of Florida is preparing to serve all these groups. Publications are available describing offerings other than the non-degree Agricultural curricula which are outlined in this bulletin.

A veteran with an involved problem concerning admission, credits from other institutions, college program desired, or anything else, should come to the campus for necessary conferences with University officials before registration day. Since men are released from the service every day, many will have time to adequately plan and avoid the rush of opening day. During the semester, officials have time to check rather thoroughly with each individual.

There has been appointed a member of the University staff as Veterans' Counselor, Assistant Dean J. Ed Price, whom the veteran is invited to contact if he has any problem to discuss or questions to ask. Dean Price is located in Room 3, Language Hall.

Our experience to date has indicated that most veterans planning to enter the University of Florida, regardless of the type of program they desire, have several common questions. This section is devoted to answers to questions most frequently asked by veterans.

How does the veteran gain admission to the University?

See the section on ADMISSION. Request the proper application as described there. Application should be made before coming to Gainesville.

Can a veteran who has not graduated from high school enter the non-degree program?

Such veterans will be admitted.

Does the University provide housing facilities for veterans with families?

Efforts are being made to arrange for University operated or supervised living quarters for veterans with families. At the present time some accommodations can be made available in the University dormitories but these would not include housekeeping facilities. It is hoped that in the near future some family units can be obtained by the University. The Office of the Dean of Students will maintain a list of apartments and small houses available adjacent to the campus. A veteran planning to bring his family is urged to correspond with the Dean of Students well in advance of enrollment for assistance in this connection.

Who is eligible for benefits under the GI Bill of Rights (Public Law 346)?

Any veteran with a discharge other than dishonorable who has 90 days or more of active military service (exclusive of time spent in the ASTP, the Navy V-12, or as a cadet at one of the service academies) and who was less than 25 years of age at the time of entering the service (September, 1940, or after) is eligible. If the veteran is over 25 years of age at the time of entering the service, he must furnish proof that his education was interrupted to become eligible under the GI Bill.

How does a veteran apply for benefits under the GI Bill?

Application must be made on a special form. This form can be obtained from the University, any Veterans Administration office or from such service groups as the Red Cross, veterans' organizations, etc. The veteran should procure the form, execute it before a notary public and send it to the Registrar of the University, accompanied by a certified copy of his discharge or certificate of service. (The original discharge may be sent if it is difficult to have a copy made. The University

will make a certified copy and forward it with the application. If this method is used, the original document should be sent by registered mail.)

What benefits are available under the GI Bill?

A qualified veteran receives tuition, fees, books and training materials up to $500 for an academic year of nine calendar months (these expenses at the University of Florida are less than $500 for the academic year) and a subsistence allotment in the amount of $50 per month if single, $75 per month with dependents.

Can any portion of the $500 per year allowed by the Government be used to pay for board and room?

No. $500 is the maximum paid to the institution by the Government for tuition, fees, books, etc., not an allotment to the veteran for those expenses. Personal expenses of the veteran including board and room are his own responsibility. His subsistence allotment should provide for these expenses in most cases.

How long can a veteran attend the University under the GI Bill?

The qualified veteran is entitled to one year of education or training. Satisfactory completion of that year entitles him to an additional period not to exceed the time spent in active service after September 16, 1940. The total period may in no event exceed four years (the Veterans Administration regards the term "year" as used above as a calendar year of twelve months).

Who is eligible for benefits under the Vocational Rehabilitation Law (Public Law 16)?

An honorably discharged veteran with a service connected, pensionable disability that produced a vocational handicap is eligible. The provisions of this law are somewhat complex and eligibility can be determined only by the Veterans Administration. A veteran who feels that he might qualify is advised to consult officials of the Veterans Administration.

What fields of study are open to veterans under Public Law 16?

A Veterans Administration approved program that trains one for the vocation selected by the veteran and the officials of the Veterans Administration. The training must be directly preparatory for a specified employment objective.

What benefits are available under Public Law 16?

The Government pays costs of training (fees, tuition, books, etc.) directly to the institution and allowances to the veteran for living and personal expenses that vary with the type of disability, dependants, etc.

GENERAL INFORMATION

EXPENSES

REGISTRATION FEES	1st Sem.	2nd Sem.
Undergraduate Students	$ 50.00	$ 50.00
All Non-Florida Students Pay Additional	100.00	100.00

DESCRIPTION OF REGISTRATION FEES

Registration Fees listed in the above table include the following:

Contingent Fee.—A fee of $27.50 per semester is charged every student.

Special Fee.—A fee of $2.50 per semester is required of each student for the construction and rehabilitation of buildings.

Infirmary Fee.—All students are charged an Infirmary Fee of $7.50 per semester which secures for the student, in case of illness, the privilege of a bed in the Infirmary and the services of the University Physician and the professionally trained nurses, except in cases involving a major operation.

Student Activity Fee.—A fee of $24.00 is assessed to maintain and foster athletic sports, student publications, and other student activities. $12.00 of this fee is paid the first semester, and $12.00 is paid the second. Student fees are passed by a vote of the student body and approved by the Board of Control before they are adopted.

Swimming Pool Fee.—A fee of 50 cents per semester is charged all students for use of the lockers and supplies at the swimming pool.

SPECIAL FEES

Fees which apply in special cases only are listed below:

Breakage Fee.—Any student registering for a course requiring locker and laboratory apparatus in one or more of the following departments is required to buy a breakage book: Chemistry, Pharmacy, Biology, and Soils. This book costs $5.00. A refund will be allowed on any unused portion at the end of the year, when the student has checked in his apparatus to the satisfaction of the departments concerned.

Room Reservation Fee.—Students wishing to reserve rooms in the Residence Halls must pay a room reservation fee of $10 at the time such reservation is made.

Special Infirmary Charges.—A student requiring an emergency operation, which is not covered by the fee assessed, may employ the services of any accredited physician whom he may select, and utilize the facilities of the Infirmary for the operation. To secure this medical service the student must report to the physician in charge of the Infirmary. When operating room is used a fee of $5 is charged. Board in the Infirmary is charged at the rate of $1 a day.

Library Fines.—A fine of 2 cents a day is charged for each book in general circulation which is not returned within the limit of two weeks. "Reserve" books may be checked out overnight, and if they are not returned on time the fine is 25 cents for the first hour and 5 cents an hour or fraction of an hour thereafter until they are returned. No student may check out a book if he owes the Library more than 50 cents in fines.

FEES FOR PART-TIME STUDENTS

Students who carry nine hours or less will be charged a contingent fee of $25.00 a semester, the infirmary fee of $7.50 a semester and special fee of $2.50 a semester. Such

students must pay any tuition which their classification specifies. Such students are not entitled to any of the privileges attached to any other University fee.

PAYMENT OF FEES

Fees are payable as a part of the registration procedure except for the Non-Florida Fee for the first semester of attendance which must be sent to the Office of the Registrar before the applicant may be issued an Admission Certificate; the Room Reservation Fee which must accompany the Application for Room Reservation and be sent to the Director of Residence; and Special Fees which are payable at the time that the student expects to receive the service for which the fee is assessed. Failure to pay fees when due makes registration incomplete and will result in assessment of the $5 late registration fee.

If any remittance is made by mail it must be accompanied by the full name of the student concerned and a notation concerning the fee or fees being paid. All remittances must be made payable to the University of Florida and sent to the Office of the Business Manager except as noted above. The Office of the Business Manager will issue receipts for all funds received which will indicate the purpose of payment. Students are cautioned to preserve these receipts and have them available for examination by any University official concerned.

REFUND OF FEES

Students resigning before the dates specified in the University Calendar are entitled to a refund of all fees except $5 of the contingent fee. This $5 is the cost of service in registering the student and is never refunded.

OTHER EXPENSES

Room Rent.—Rent for rooms in the Residence Halls varies from $32.00 to $45.00 per student per semester. Remittances for Room Rent should be made in accordance with the directions issued by the Director of Residence. (See page 14.) If the student does not reside in one of the units of the Residence Hall System the arrangements concerning rates and method of payment are the responsibility of the individuals concerned.

Meals.—Cost of meals in the University Cafeteria varies with the individual. Books of coupons having cash value may be purchased from the Office of the Business Manager or meals may be paid for in cash.

The P. K. Yonge Cafeteria, located in the Yonge Building serves noon day meals five days each week, and offers to University students high quality food at reasonable prices.

The University Soda Fountain, located in the basement of Florida Union, offers strictly fountain service, all kinds of sandwiches, candies, tobaccos, etc.

Books and Supplies.—Cost of these items varies with the program of the student. It is estimated that from $30.00 to $50.00 per year will cover this expense for most students.

SUMMARY OF EXPENSES FOR THE YEAR

	Minimum	Maximum
General Fees and Course Expenses	$100.00*	$100.00*
Books and Training Supplies for the Year	30.00	50.00
Laundry and Cleaning	25.00	35.00
Room and Board	360.00	450.00
Estimated Total Expenses	$515.00	$635.00

*Non-Florida students are charged $200 tuition per year in addition.

TUITION

No tuition, except in the College of Law, is charged Florida students.

Non-Florida students, including those pursuing graduate work, pay tuition of $100.00 per semester in addition to the fees charged Florida students.

Classification of Students.—For the purpose of assessing tuition, students are classified as Florida and non-Florida students.

A Florida student, if under twenty-one years of age, is one: (1) whose parents have been residents of Florida for at least twelve consecutive months next preceding his registration; or (2) whose parents were residents of Florida at the time of their death, and who has not acquired residence in another state; or (3) whose parents were not residents of Florida at the time of their death but whose successor natural guardian has been a resident of Florida for at least twelve consecutive months next preceding the student's registration.

A Florida student, if over twenty-one years of age, is one: (1) whose parents are residents of Florida (or were at the time of their death) and who has not acquired residence in another state; or (2) who, while an adult, has been a resident of Florida for at least twelve consecutive months next preceding his registration, provided such residence has not been acquired while attending any school or college in Florida; or (3) who is the wife of a man who has been a resident of Florida for at least twelve consecutive months next preceding her registration; or (4) who is an alien who has taken out his first citizenship papers and who has been a resident of Florida for at least twelve consecutive months next preceding his registration.

All students not able to qualify as Florida students are classified as non-Florida students.

The status of the classification of a student is determined at the time of his first registration in the University, and may not thereafter be changed by him unless, in the case of a minor, his parents move to and become legal residents of this State, by maintaining such residence for twelve consecutive months. If the status of a student changes from a non-Florida student to a Florida student, his classification may be changed at the next registration thereafter.

ADMISSION

The veteran contemplating entering the University of Florida for the purpose of pursuing one of the non-degree Agricultural curricula should request application forms from the Office of the Registrar. High School graduation is not required but records of all previous educational achievement must be filed with the application for admission. The original request for forms should indicate clearly that the prospective student wishes to enroll in the non-degree program and should also give a brief summary of previous education.

AGRICULTURAL COURSES FOR VETERANS*

Realizing that many war veterans may desire special training in certain fields to assist them in obtaining employment following their return to civilian life, the College of Agriculture of the University of Florida is offering instruction in the fields of General Agriculture, Animal Production, Pest Control, Dairy Manufacturing, Horticulture, Poultry Husbandry and Forestry. Students desiring training in any of these fields for self-improvement so that they may manage their operations to better advantage will find these courses helpful. Furthermore, it is believed that there will be certain individuals

*These courses are outlined to meet the needs of veterans, but they are open to others who may desire short time training.

who for some reason cannot spend more than two years in a training program. For such veterans, the College of Agriculture has arranged the courses described in this bulletin.

As has been indicated previously, the courses outlined herein cover a two-year period. It is assumed that those desiring more detailed instruction in scientific agriculture and whose education has taken them through high school or beyond, will elect the regular four-year course in the particular field in which they are interested.

Florida offers many opportunities in various fields of agriculture. Within recent years, improved strains of corn and oats have been developed through the work of the Agricultural Experiment Station. With increased production of field crops, future livestock production in this state will be placed on a more stable basis than in years past.

Much attention has been given to soil conservation and fertilization of crops, groves and pastures during the past few years. With the conservation practices being followed at the present time and with the information available on the proper use of fertilizers, the production of field crops and pastures is more certain at the present time than in past years.

Florida does not furnish sufficient beef, pork, poultry, eggs and dairy products from local sources to meet the demands of home markets. Long grazing seasons on improved pastures make possible an increased production of beef and milk. Millions of acres of land in Florida could be put in improved pastures, thereby expanding beef and milk production.

Due to the limited production of milk in Florida during the 10-year period preceding the war, which provided only enough to supply the demand for fluid milk, little attention was given to the manufacture of dairy products other than ice cream. During this period practically all of the dairy products used in ice cream were shipped into the state. With increased milk production, however, more attention may be given in the future to the manufacture of dairy products, such as butter, cheese, condensed milk and milk powder.

Florida is a deficit poultry producing state and the importation of large quantities of eggs, broilers and fryers is necessary to fill local demands. Due to the mild climate, poultry production in this state is quite different from that practiced in other states where greater protection must be given birds during the winter months. With available low priced land in this state, it is possible to practice rotation of yards and range to a greater extent than in states where land prices are higher.

The control of household and storage pests through modern extermination methods has advanced rapidly in the past ten years. Structural pest control operators are located in all major cities of the United States, where they determine the nature and extent of damage caused by various household pests and correct these problems in homes and commercial buildings. It is a relatively new field that offers good opportunities for interested persons.

Florida ranks high as a fruit and vegetable producing state and there will be continuing need for men trained in these fields as well as in other specialty branches of horticulture. In particular there is opportunity for small nurserymen to operate successfully.

Florida's 20 million acres of forest land and her forest industries—naval stores, paper, rayon, lumber, poles and piling, and wood preservation—which have always been valuable assets of the State, appear to be headed for increasing importance in the future. Research, which found southern pines suitable for paper and thus brought six large paper mills to the state in approximately ten years, will find new uses for wood and thereby bring new industries here. To perpetuate these industries, the forest lands must be brought to fuller production. To develop the forest assets as fully as possible, trained men are needed to protect and manage the forest lands and to work in various capacities in the forest industries.

In pursuing the program outlined herein, emphasis will be placed upon the practical phase of instruction in all courses given. Veterans will have opportunity to discuss their problems with instructors at all times in the various fields of agriculture. Those desiring employment will be assisted by the Dean and the staff members in the particular field in which the major work is taken.

Instruction during the first year will be the same for all veterans desiring to take General Agriculture, Animal Production, Dairy Manufacturing, Poultry Husbandry, Horticulture, and Structural Pest Control. Veterans taking Forestry will have a special program throughout the entire two years of instruction.

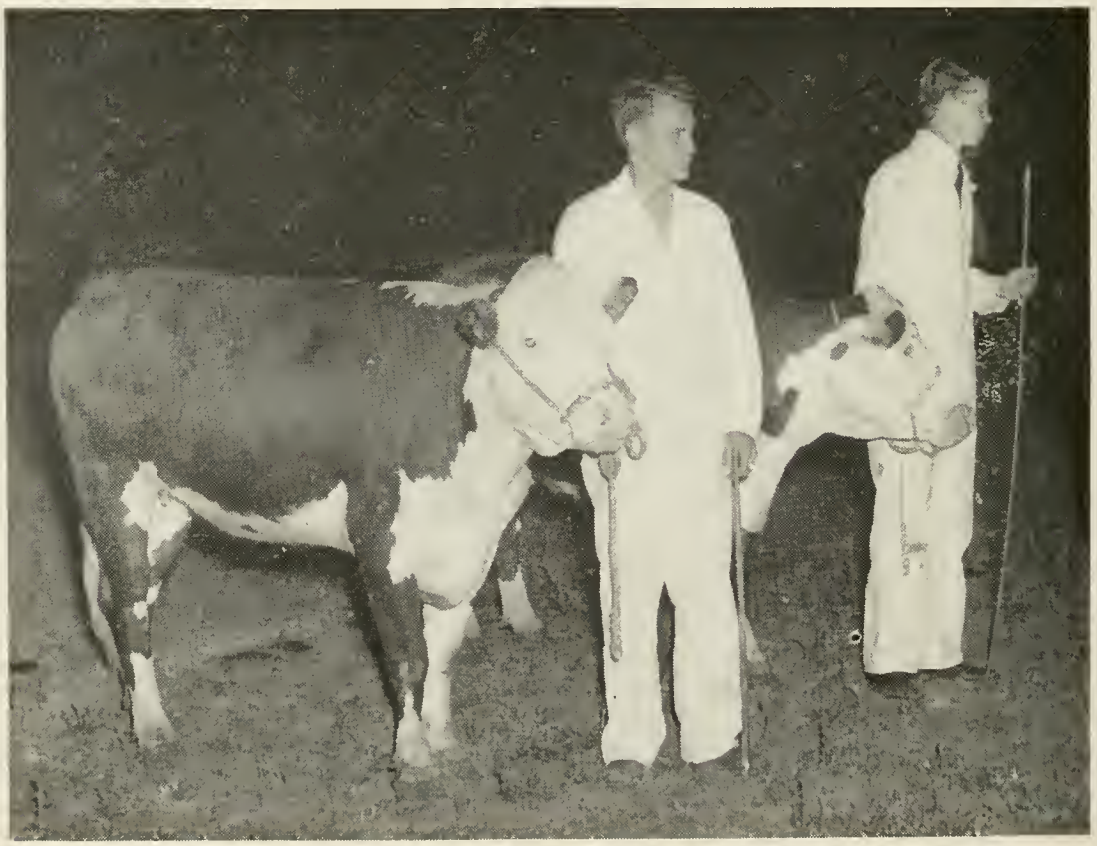
CURRICULA

First Year

(For all programs except Forestry)

		First Semester	Clock Hrs. Per Week
Gl.	21	General Agricultural Science	4
Ms.	21	Arithmetic	4
Eh.	21	Grammar	3
Al.	21	Breeds and Classes of Farm Animals	4
Bty.	23	Botany	5
Ey.	21	General Entomology	3
			23

		Second Semester	Clock Hrs. Per Week
Gl.	22	General Agricultural Science	4
He.	22	General Horticulture	4
Eh.	22	Composition	3
Py.	24	Farm Poultry	4
Ag.	22	Farm Mechanics	4
Dy.	24	Dairy Elements	4
			23



Future cattlemen exhibiting cattle they have groomed and trained as part of the program in animal production.

Second Year

GENERAL AGRICULTURE

Courses offered in the field of General Agriculture are planned to give veterans a broad training in general farming activities. Certain sections of the state are classified as general farming areas in which numerous field and grazing crops may be produced. Veterans taking these courses should receive sufficient training to enable them to obtain employment as farm managers in the general farming area or to prepare themselves to operate their own farms more efficiently.

		First Semester	Clock Hrs. Per Week			Second Semester	Clock Hrs. Per Week
As.	31	Managing the Farm	4	As.	32	Farm Marketing	4
Sls.	33	Farm Soils	4	Ay.	34	Southern Forage and Conservation Crops	4
Fy.	45	Woodlot Forestry	4	Ag.	32	Farm Equipment	4
Pt.	31	Plant Disease Control	3	He.	32	Vegetable Growing	4
Ay.	33	Southern Field Crops	4			Electives	8
		Electives	5				
			24				24

Second Year

ANIMAL PRODUCTION

Courses offered under Animal Production are planned to train veterans in the handling of beef and dairy cattle. Feeding and management of herds are emphasized. Veterans pursuing this program should be in a position to obtain employment as herdsmen in beef and dairy herds. The training received should enable veterans to manage their own livestock operations more efficiently in the event they plan to engage in livestock farming.

		First Semester	Clock Hrs. Per Week			Second Semester	Clock Hrs. Per Week
Al.	32	Judging and Selection of Farm Animals	5	Ay.	34	Southern Forage and Conservation Crops	4
Al.	31	Feeding Farm Animals	5	Al.	38	Farm Sanitation	3
As.	31	Managing the Farm	4	Al.	34	Breeding of Farm Animals	2
Dy.	33	Managing Dairy Cattle	4	Dy.	38	Farm Milk Production	4
Ay.	33	Southern Field Crops	4	Al.	36	Livestock Production Management	4
				Py.	32	Managing the Farm Poultry Flock	6
				Ag.	32	Farm Equipment	4
			22				27

Second Year

DAIRY MANUFACTURING

Before the war there was an unfilled need for men trained in the field of dairy manufacturing in the producer-distributor dairies and milk and ice cream plants throughout the state. Due to the impetus of the war, great expansion has taken place in the dairy products field in many sections of the state and with the prospects of continued increase in the population of the state during the early post war years, the expansion program will be maintained and probably will be increased. Workers trained in the handling of essential food products have seldom wanted for employment regardless of economic conditions.

With increased milk production throughout the south, leading to the establishment of plants to manufacture butter, cheese, condensed milk and milk powder from the surplus milk, the demand for men trained in this work should increase materially.

The Dairy Products Laboratory at the University of Florida offers excellent facilities for the training of workers for those jobs. The laboratory operates on a limited commercial scale which together with class room work offers a well rounded program for such training.

	First Semester	Clock Hrs. Per Week
Dy. 33	Managing Dairy Cattle	4
Dy. 35	Dairy Plant Operation	10
As. 31	Managing the Farm	4
Bcy. 31	Bacteriology	5
	Electives	6
		29

	Second Semester	Clock Hrs. Per Week
Dy. 38	Farm Milk Production	4
Dy. 36	Dairy Plant Operation	10
As. 32	Farm Marketing	4
Ag. 32	Farm Equipment	4
Bcy. 34	Practical Bacteriology of Dairy Products	5
	Electives	3
		30

Working with dairy cattle—one of the practical laboratories in dairying.

Second Year

POULTRY HUSBANDRY

The courses in poultry husbandry are designed to give veterans training in incubation and thereby qualify them for a job in a commercial baby chick hatchery or for the operation of a hatchery of their own. Training for the operation of a poultry breeding farm and in commercial egg production will be stressed. Instruction in commercial broiler production, and in the grading, distribution and marketing of eggs and poultry will be given.

	First Semester	Clock Hrs. Per Week
Sls. 33	Farm Soils	4
As. 31	Managing the Farm	4
Py. 31	Managing the Farm Poultry Flock	6
Py. 33	Poultry Plant Operation	6
	Electives	6
		26

	Second Semester	Clock Hrs. Per Week
Ag. 32	Farm Equipment	4
Dy. 38	Farm Milk Production	4
Py. 32	Managing the Farm Poultry Flock	6
Py. 36	Poultry Sanitation and Disease Control	4
Py. 34	Poultry Plant Operation	6
	Electives	3
		27

Second Year

STRUCTURAL PEST CONTROL

Since the field of Pest Control is a relatively new field, there is great need for persons trained along these lines. Veterans pursuing this course of study will be trained in the practical and scientific phases of this work. Such training should qualify them for employment in well established firms in pest control operations or for the establishment of their own firms in this field.

		First Semester	Clock Hrs. Per Week
Ey.	31	Insect Structure	4
Ey.	35	Pest Control	4
Ey.	33	Domestic and Storage Pests	3
Ey.	38	Environmental Sanitation	3
Ag.	33	Building Construction Analysis	3
		Electives	3
			20

		Second Semester	Clock Hrs. Per Week
Ey.	32	Insect Identification	4
Ey.	34	Insect Environment and Behavior	3
Ey.	36	Insects and Health	4
Ag.	34	Building Equipment Analysis	3
Bcy.	36	Sanitary Practices	3
		Electives	3
			20

Second Year

HORTICULTURE

Horticultural courses offered are planned to assist students in fruit and vegetable growing and in the production of many special crops for which Florida is noted. With increased population and new means of transportation, Florida in the post war period will be in position to develop new phases of horticultural industries. Nursery work is particularly well suited to the man with little capital and short technical training.

		First Semester	Clock Hrs. Per Week
As.	31	Managing the Farm	4
Sls.	33	Farm Soils	4
Fy.	45	Woodlot Forestry	4
Pt.	31	Plant Disease Control	3
Ay.	33	Southern Field Crops	4
He.	31	Citrus Growing	5
			24

		Second Semester	Clock Hrs. Per Week
As.	32	Farm Marketing	4
Ay.	34	Southern Forage and Conservation Crops	4
Ag.	32	Farm Equipment	4
He.	32	Vegetable Growing	4
He.	34	Nursery Practices	4
		Electives	5
			25

FORESTRY

The program in Forestry is designed to equip men to operate their own forest properties or to serve as log scalers, timber cruisers, lumber graders, forest nursery operators, or assistants to forest property managers. A special facility for instruction is the Austin Cary Forest located a short distance from the University. Here students are given opportunity for practical work in Forestry.

The vocational aspects of the training are emphasized so that upon completion of the program the veteran will have confidence in his ability to fit into a practical forestry job.

First Year

		First Semester	Clock Hrs. Per Week			Second Semester	Clock Hrs. Per Week
Gl.	21	General Agricultural Sciences	4	Gl.	22	General Agricultural Sciences	4
Fy.	21	Southern Forestry	3	Fy.	22	Southern Forestry	3
Ms.	21	Arithmetic	4	Fy.	28	Forest Fire Protection	3
Eh.	21	Grammar	3	Eh.	22	Composition	3
Bty.	23	Botany	5	Fy.	24	Tree Identification	5
Fy.	25	Measurement of Forest Products	4	Fy.	26	Timber Survey and Maps	5
			23				23

Second Year

		First Semester	Clock Hrs. Per Week			Second Semester	Clock Hrs. Per Week
Fy.	31	Lumber Seasoning and Wood Preservation	4	Fy.	32	Timber Harvesting	6
Fy.	33	Wood Identification and Lumber Grading	5	Fy.	34	Naval Stores Operations	6
Fy.	35	Timber Growing	5	Fy.	36	Forest Thinning	6
Fy.	37	Forest Products and Marketing	3	Fy.	38	Forest Equipment	6
Fy.	39	Forest Property Administration	2	Fy.	40	Forest Road and Building Maintenance	6
		Elective*	6 to 12	Fy.	42	Saw Mill Operation	6
				Fy.	44	Forest Nursery Operation	6
			25 to 31				42

*To be chosen from: Logging, Sawmills, Forest Wildlife, Farm Soils, Southern Field Crops, Breeds and Classes of Farm Animals, General Entomology, Farm Management, General Horticulture, Plant Disease Control, Internal Combustion Engines.

OUTLINE OF COURSES

AGRICULTURAL ECONOMICS

As. 31.—Managing the Farm. 2 hours lecture and discussion, and 2 hours laboratory per week.

Farming as a business; factors for successful operation, such as size of business, rates of production, labor efficiency, and combination of enterprises; types of farming; farm layouts; farm reorganization; forms of tenure and leases; choosing and buying a farm. One or two field trips at an estimated cost of $5 each to be paid by the student at the time trips are made.

As. 32.—Farm Marketing. 2 hours lecture and discussion, and 2 hours laboratory per week.

A study of the marketing of agricultural commodities at the farm and shipping point level. Particular emphasis will be given to the distribution, grade-standards, inspection, use of market news, and use of marketing and production credit. One or two field trips at an estimated cost of $4 each to be paid by the student at the time trips are made.

Class in Agronomy studying sugar cane varieties.

AGRICULTURAL ENGINEERING

Ag. 22.—Farm Mechanics. 2 hours lecture and 2 hours laboratory per week.

Shop practice in jobs that are common to agriculture such as building construction, machinery repair, and power transmission. Laboratory exercises consisting of actual job performance are part of the instruction.

Ag. 32.—Farm Equipment. 2 hours lecture and 2 hours laboratory per week.

The equipment used in the production, harvesting and marketing of farm crops. Laboratory exercises to supplement class instruction.

AGRONOMY

Ay. 33.—Southern Field Crops. 2 hours lecture and 2 hours laboratory and field demonstrations per week.

A study of the field crops of the southern United States—the grain crops, cotton, tobacco, sugarcane, sweet potatoes, peanuts, and miscellaneous crops, with emphasis on varieties and practices for Florida. Good seed and crop improvement methods, and crops for conservation and rotation systems are discussed.

Ay. 34.—Southern Forage and Conservation Crops. 2 hours lecture and 2 hours laboratory and field demonstration per week.

A study of these plants common to the South that provide grazing and harvested forage for livestock, and soil conservation crops and cropping practices suited to Florida are considered.

Students in Agronomy pollenizing grasses.

ANIMAL PRODUCTION

Al. 21.—Breeds and Classes of Farm Animals. 2 hours lecture and 2 hours laboratory per week.

The importance of livestock production in the agricultural program for Florida; breeds of beef cattle, dairy cattle, swine, horses, and sheep; principles of livestock improvement; selection of breeding and feeding stocks; livestock management; and methods of marketing livestock.

Al. 31.—Feeding Farm Animals. 3 hours lecture and 2 hours laboratory per week.

The structure of feeds; how the animal makes use of feeds; the kinds of feeds needed for growth, fattening and to supply the everyday needs of the body; the only combination of feeds to make a balanced ration; and the importance of mineral mixtures for livestock.

Al. 32.—Judging and Selection of Farm Animals. 1 hour lecture and 4 hours laboratory per week.

A study of the various points of the animal; how the points appear in a perfect animal; actual practice in judging beef cattle, dairy cattle, horses and swine to observe the points of these animals; to compare animals having strong points with those having weak points; and how to select animals with strong points for breeding purposes.

A student participating in the Annual Livestock Show and Rodeo.

Al. 34.—Breeding of Farm Animals. 2 hours lecture per week.

The meaning of grade-breeding, cross-breeding, inbreeding, line breeding, out-crossing, and the breeding of purebred animals; the reproductive organs and development of the young; the breeding season and the importance of adhering to a definite breeding program in the management of farm animals.

Al. 36.—Livestock Production Management. 2 hours lecture and 2 hours laboratory per week.

The management of breed cattle including pasture rotation, water supply, use of mineral supplements, the breeding season, castration, separation of heifers, and care of herd bull; swine management including water supply, shade, shelter, the breeding season, care of the brood sow at farrowing time, care of pigs, castration of male pigs, vaccination against hog cholera, and the management of the herd boar.

Al. 38.—Farm Sanitation. 3 hours lecture per week.

The part germs play in producing diseases of animals and man; a safe water supply for the farm home; sanitary privies; disinfectants and how to use them; control of diseases through sanitation.

BACTERIOLOGY

Bcy. 31.—Bateriology. 1 hour recitation and 4 hours laboratory per week.

This course is intended to give information on the occurrence and distribution of the different kinds of bacteria, requirements for their growth in nature and controlled conditions, their relation to health and disease of man, animals, plants, soil fertility, household and farm sanitation, and their use in certain industries.

Bcy. 34.—Practical Bacteriology of Dairy Products. 1 hour recitation and 4 hours laboratory per week.

Consideration will be given to the sources and kinds of micro-organisms in milk and dairy products; how to isolate and utilize desirable forms in the manufacture of dairy products, and prevent the activities of the undesirable ones.

Bcy. 36.—Sanitary Practices. 2 hours recitation and 2 hours laboratory per week.

Problems in public sanitary practices.

BOTANY

Bty. 23.—Botany. 1 hour recitation and 4 hours laboratory per week.

This course will acquaint the student with the principal parts of seed plants, their functions, and the influence of physical factors of their environment upon them. This study will be integrated with courses in agronomy, forestry, horticulture, pharmacy, and general agriculture.

DAIRYING

Dy. 24.—Dairy Elements. 2 hours lecture and 2 hours laboratory per week.

The make-up of milk; the food value of milk; farm methods of handling milk from sanitation standpoint; dairy cattle breeds; selection of desirable cows for milk production; the breeding and raising of dairy cattle.

Dy. 33.—Managing Dairy Cattle. 2 hours lecture and 2 hours laboratory per week.

Feeding practices for dairy cattle; raising of calves and heifers; water supply; age to breed dairy heifers; and care of herd bull.

Dy. 35-36.—Dairy Plant Operation. 2 hours lecture and 8 hours laboratory per week.

Practical work in the dairy products laboratory including the weighing, sampling, pasteurization, cooling and bottling of milk; washing of milk utensils; care of machinery in a dairy plant and the manufacture of ice cream and other milk products.

Dy. 38.—Farm Milk Production. 2 hours lecture and 2 hours laboratory per week.

Importance of pastures in milk production in Florida; make-up of rations for the dry cow; milking practices and the handling of milk when freshly drawn from the cow.

ENTOMOLOGY

Ey. 21.—General Entomology. 3 hours lecture per week.

A study of the basic principles of entomology.

Ey. 31.—Insect Structure. 3 hours lecture per week.

This course is a practical course in insect structure as it pertains to insect control. Lectures and demonstrations deal with the external skeleton, wings, legs, and body parts; as well as all internal systems such as circulatory, respiratory, muscular, nervous, and reproductive. Life stages as they relate to control will also be considered.

Ey. 32.—Insect Identification. 2 hours lecture and 2 hours laboratory per week.

A brief study of the fundamental principles of insect identification. The remainder of the course deals with actual practice of identifying insects of economic importance.

Ey. 33.—Domestic and Storage Pests. 3 hours lecture per week.

This course considers the broad principles of structural pest control. It includes a detailed study of the life histories and habits of household and storage pests.

Ey. 34.—Insect Environment and Behavior. 3 hours lecture per week.

A study is made of the various places where insects live and their behavior under these conditions.

Ey. 35.—Pest Control. 2 hours lecture and 2 hours laboratory per week.

The course in insect control deals primarily with the chemical phases of control. It consists of a review of older methods and a detailed study of the modern method and materials employed. Consideration is given fumigation, contact poisons, stomach poisons, and repellants. Special emphasis is placed upon the materials employed by the commercial pest control operator and the producer of agricultural crops.

Ey. 36.—Insects and Health. 2 hours lecture and 2 hours laboratory per week.

A study of insects and related pests which affect the health and comfort of man. Primary consideration is given such groups as mosquitoes and their relation to malaria, yellow fever and and dengue fever; lice and their relation to typhus fever; flies and their influence upon typhoid fever; fleas and bubonic plague.

Ey. 38.—Citrus and Vegetable Insects. 3 hours lecture per week.

This course deals with the major insect and related pests of citrus and vegetable crops in the state of Florida.

A detailed study is made of the life histories, habits, biology, and control of such pests. Consideration is also given the beneficial agents such as fungi, parasites, and predators which aid in the control of these pests.

Entrance to the Austin Cary Memorial Forest, one of the Laboratories for Forestry students.

FORESTRY

Fy. 21-22.—Southern Forestry. 3 hours lecture per week for two semesters.

The development of, and opportunities in, forestry in the South. The practice of forestry as applied by state, federal, and private owners of forest land.

Fy. 24.—Tree Identification. 1 hour lecture and 4 hours field work per week.

The classification and identification by field characteristics of the commercial timber species of the United States, together with their distribution.

Fy. 25.—Measurement of Forest Products. 2 hours lecture and 2 hours field work per week.

The various units of measure, such as board foot, cubic foot, and cord, used to measure the volume of forest products. Techniques for measuring forest products in commercial practice.

Fy. 26.—Timber Survey and Maps. 1 hour lecture and 4 hours field work per week.

Methods of measuring the volume of standing timber in terms of various products and of constructing various types of forest stand maps.

Fy. 28.—Forest Fire Protection. 3 hours lecture per week.

The organization of forest fire protection systems and the techniques of forest fire control.

Fy. 31.—Lumber Seasoning and Wood Preservation. 2 hours lecture and 2 hours field work per week.

Handling and treatment of lumber for air-seasoning, and operation of a dry kiln in the Wood Products Laboratory. Practice in treating lumber and timber by pressure and non-pressure methods and a consideration of various chemicals used.

Fy. 32.—Timber Harvesting. 6 hours field work per week.

Use of various tools and machinery used in cutting of saw logs, pulpwood, poles and cross ties.

Treating fence posts. A part of the practical work in Forestry.

Fy. 33.—Wood Identification and Lumber Grading. 1 hour lecture and 4 hours field work per week.

A study of features used in identifying commercial woods and laboratory practice in distinguishing woods by readily detected characteristics. Consideration of standard lumber grades and their application in practice.

Fy. 34.—Naval Stores Operations. 6 hours field work per week.

Practice in the technique of hanging new cups and in the use of hacks and pullers in operating naval stores faces. Operation of a turpentine still.

Fy. 35.—Timber Growing. 1 hour lecture and 4 hours field work per week.

The theory of various cutting methods required to insure satisfactory regeneration and growth of forests. A consideration also of such supplementary measures as forest planting, soil preparation, fertilization, and slash disposal.

Fy. 36.—Forest Thinning. 6 hours field work per week.

The application of thinning and improvement cutting to young forests of slash pine, longleaf pine, and hammock hardwoods to increase growth and improve timber quality.

Fy. 37.—Forest Products and Marketing. 3 hours lecture per week.

The specifications and methods of manufacture of the major forest products. Methods of marketing forest products and the activities of cooperative and other marketing organizations.

Fy. 38.—Forest Equipment. 6 hours field work per week.

Practice in the care and use of axes, saws, tractors, fire line plows, fire pumps and other tools used in the operation of a forest.

Forestry students learning ax shapening at Summer Camp.

Fy. 39.—Forest Property Administration. 2 hours lecture per week.

The legal aspects and the responsibilities of forest property ownership and the organization and administration of small and large forest land holdings.

Fy. 40.—Forest Road and Building Maintenance. 6 hours field work per week.

Practice in simple road surveys, repair of road culverts, and road grading, and in the repair of frame buildings.

Fy. 41.—Sawmills. 3 hours lecture per week.

The organization of a sawmill business and floor plans for sawmills of various sizes and types.

Fy. 42.—Saw Mill Operation. 6 hours field work per week.

Practice in the operation of a small sawmill for cutting lumber and heavy timbers, and in the proper handling of the finished product.

Fy. 43.—Forest Wildlife. 2 hours lecture and 2 hours field work per week.

Description and life habits of animals and birds of the forest, their food and habitat requirements, and plans for land management to handle them as a crop.

Fy. 44.—Forest Nursery Operation. 6 hours field work per week.

Practice in various phases of nursery operation such as seed bed preparation, seeding, watering, weeding, fertilization, lifting and packing of nursery stock.

Fy. 45.—Woodlot Forestry. 2 hours lecture and 2 hours laboratory per week.

Management of the farm woods as a farm resource and proper use and sale of farm timber.

Fy. 47.—Logging. 3 hours lecture per week.

The organization of logging camps and logging operations, and the use of various types of logging equipment as used under varying conditions of timber stand, topography, and weather conditions.

Picking oranges. Field work in a citrus culture course.

HORTICULTURE

He. 22.—General Horticulture. 2 hours recitation and 2 hours laboratory per week.

A study of the basic principles involved in growing fruits, vegetables and flowers and the relationship of climate, soils, cultural methods and pests to the production of horticultural plants.

He. 31.—Citrus Growing. 3 hours lecture and 2 hours practical work per week.

A study of all phases of citrus growing, from planting the seed to marketing of the fruit, including the effects of soil type, root-stock, fertilizer and spraying programs on the quantity and quality of fruit. A citrus grove with many varieties fruiting is available for practical work.

He. 32.—Vegtable Growing. 2 hours lecture and 2 hours practical work per week.

A study of principles and practices in home and commercial production of vegetables, with field work in seeding, cultivating, spraying and harvesting representative vegetables.

He. 34.—Nursery Practices. 2 hours lecture and 2 hours practical work per week.

A study of the methods of growing nursery stocks and of propagating fruit and ornamental trees and shrubs. Practice will be given in both field and greenhouse methods.

POULTRY HUSBANDRY

Py. 24.—Farm Poultry. 2 hours lecture and 2 hours laboratory per week.

Importance of industry; breeds; culling; housing; breeding; hatching; brooding chicks; rearing pullets; managing layers; feeding; marketing; diseases and parasites.

Py. 31-32.—Managing the Farm Poultry Flock. 2 hours lecture and 4 hours laboratory per week.

Practical study of hatchery management; production of broilers and fryers; production of pullets; equipment; layout of farms; costs and returns; practical study of commercial egg farming, and the production of eggs. (This course covers two semesters' work.)

Py. 33-34.—Poultry Plant Operation. 2 hours lecture and 4 hours laboratory per week.

Instruction in the operation of a poultry plant. Practical work will be given at the Poultry Laboratory in the actual handling of all phases of poultry production.

Py. 36.—Poultry Sanitation and Disease Control. 2 hours lecture and 2 hours laboratory per week.

Causes, symptoms, methods of preventions and treatment of diseases and parasites of poultry.

SOILS

Sls. 33.—Farm Soils. 2 hours recitation and 2 hours laboratory per week.

This course presents a simple discussion of practical soil management. All phases of soil management will be treated, including soil adaptability, selecting the soil and planning its management. The factors of economic crop production, such as controlling the water supply of the soil, crop rotations, manuring, green manuring, liming, fertilizing pasture, truck, fruit and field crops will be considered.

Newell Hall houses part of the laboratories and offices of the Agricultural Experiment Station.

VETERANS REFRESHER COURSE IN LAW

THE UNIVERSITY RECORD
of the
UNIVERSITY OF FLORIDA

Vol. XL, Series 1 No. 7 July 1, 1945

Published monthly by the University of Florida, Gainesville, Florida
Entered in the post office in Gainesville, Florida, as second-class matter,
under Act of Congress, August 24, 1912
Office of Publication, Gainesville, Florida

COLLEGE OF LAW

PROGRAM FOR VETERANS

The purpose of the College of Law is to develop keen and efficient lawyers, conversant with the ideals and traditions of the profession, and capable of coping successfully with the complicated legal problems of modern society. Its regular curriculum, therefore, is both broad and practical, and covers the cultural, ethical, and technical aspects of the profession. At the same time it is flexible enough to enable students to gain some specialization in the field of their choice. The regular curricula and admission requirements of the College are described in the current issue of the University catalog, which will be sent to anyone upon request addressed to the Dean of the College or the Office of the Registrar. It is the purpose of this bulletin to describe the Refresher Course provided for veterans.

ADMISSIONS

It is probable that veterans interested in the study of law will fall into the following categories:

A. Those Admitted to the Practice of Law

1. *Meeting the admission requirements for the regular curricula of the College of Law at the University of Florida.*

The veteran practitioner will wish primarily to be brought up to date professionally and hence probably will take the Refresher Course only. Some, however, may wish to take as regular students certain courses they have not had in college or that they feel they need to retake. Others lacking a law degree may desire to become candidates for a degree under the pertinent regulations of the University.

2. *Not meeting the admission requirements.*

The present entrance requirement for the College of Law is the minimum requirement of the Association of American Law Schools and the American Bar Association, which specify that the law student must have completed two years of satisfactory academic work before admission to law. Obviously veterans who do not meet these requirements cannot be admitted to the College as candidates for degrees, and hence they can be admitted only to the Refresher Course. Inasmuch as they have already been admitted to the practice of law, this course will be of benefit to them in bringing them up to date.

B. Those Not Admitted to the Practice of Law

1. *Meeting the admission requirements for the regular curricula of the College of Law at the University of Florida.*

A knowledge of law has little or no vocational value to one who is not admitted to the practice and who is ineligible to take the Bar examination.

Since January 1, 1942, applicants for the Florida bar examination, by order of the Supreme Court, must be graduates of an accredited law school, and in addition be graduates of an accredited senior high school, and have completed at least two years of academic college work (half the work required for a degree) in an approved college. While these requirements have been somewhat relaxed for a limited class during the war by order of the Supreme Court entered January 27, 1942, it is not believed that the order is applicable to examinees after the war. It does not appear that any will be eligible for the bar examination who have not completed two years of academic college work (or passed examinations equivalent thereto). Hence, veterans eligible to enter the law school should do so and pursue their law course either to graduation, or for such a time as is necessary to take the bar examination, should the present requirement of graduation be suspended by subsequent order of the Supreme Court.

In special cases where an applicant has sufficient advanced standing in law to make it profitable for him also to take the Refresher Course, the Dean may admit him thereto.

2. *Not meeting the admission requirements.*

Veterans in this category will not be admitted until the requirements for admission to the regular curriculum as set forth in the current catalog have been met. It would be profitless to admit a veteran to the Refresher Course, when after its completion he would not be eligible to take the bar exmination or otherwise to be admitted to the bar.

APPLICATION FOR ADMISSION TO THE COLLEGE OF LAW

A. For Refresher Course:

The veteran should obtain an application for admission from the Office of the Registrar. In requesting this form he should state the colleges and universities previously attended and whether or not he has been admitted to the practice of law. He will be requested to furnish transcripts from each of the institutions attended if he expects to take any of the law courses for credit or wishes to become a candidate for a degree. If he wishes to take the Refresher Course only, he will be requested to submit evidence of admission to the practice of law.

B. For the Regular Law Curriculum:

The veteran should apply to the Office of the Registrar for application forms and state the colleges and universities previously attended. He will be required to furnish official transcripts sent directly from the institutions previously attended to the Registrar or the Dean of the College of Law. If he has not completed academic work of the quantity and quality sufficient to meet the requirements for admission to the College of Law, he may be permitted to register in the academic college or school for which he is qualified, in order that he may complete the pre-law requirements.

TIME OF ADMISSION

Eligible applicants wishing the Refresher Course only may be admitted at any time during the regular school year. The Refresher Course runs for a semester and will be repeated. The nature of the work and the maturity of the applicants admitted permit a student entering after a semester has started to continue until the corresponding period in the following semester and to profit without handicap from all instruction given.

DESCRIPTION OF THE REFRESHER COURSE

The purposes of the Refresher Course are to review the veteran in fundamental principles of the law, and to bring him down to date professionally.

The work is of two sorts. In the morning the veteran will audit (not take for credit) certain regular courses to which he is assigned. The auditing is designed to recondition the mind and to review it on principles at one time understood, but which have become hazy through the shock of war. It is based on the theory that hearing the minutia of the law brought out as it was in former classes will be more effective as a therapeutic process designed to lift the law from the subconscious than any intensified reviews. When a certain amount of law is lifted from the subconscious (it doesn't much matter what subjects), it is believed that a good deal more law will rise with it.

Classes in the afternoons will teach the significant changes in the law since the outbreak of the war. Florida statutes, constitutional amendments, and decisions will be assigned for study and recitation. The same will be true of Federal statutes and decisions. Students will be instructed in the use of Florida Statutes 1941, and in the use of the law library. Supplementary lectures by eminent attorneys will be provided throughout the Course.

Tests will be given to determine the progress of students, but no credit for work in the Refresher Course is applicable towards a degree.

FEES

For Florida students the registration fees are $60 per semester. This amount includes student activity and infirmary fees. For non-Florida students the registration fee of $160 per semester.

LIVING EXPENSES

It is estimated that room and board for a semester may be obtained at from $110 to $180. Books and supplies will cost from $20 to $30. Other incidental expenses will probably range from $50 to $100.

The University Record

of the

University of Florida

Schedule of Courses

First Semester

1945-46

Vol. XL, Series 1, No. 9 *September 1, 1945*

Published monthly by the University of Florida, Gainesville, Florida
Entered in the post office in Gainesville, Florida, as second-class matter,
under Act of Congress, August 24, 1912
Office of Publication, Gainesville, Florida

UNIVERSITY OF FLORIDA

SCHEDULE OF COURSES

First Semester 1945-46

ABBREVIATIONS

Under the heading Dept. will be found the department name abbreviations adopted for official records.

The following abbreviations have been used to designate buildings:

AG - Agriculture Building

AU - University Auditorium

BA - Benton Annex

BN - Benton Hall

BU - Buckman Hall

CH - Chemistry Building

DL - Dairy Laboratory

EG - Engineering Building

HL - Hydraulic Laboratory

HT - Horticulture Building

LA - Language Hall

LW - Law Building

PE - Peabody Hall

PO - Poultry Laboratory

RA - Radio Station

SC - Science Hall

SE - Seagle Building

YN - Yonge Building

COMPREHENSIVE COURSES

C – 1

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
C	11	11	4	MWF T	9 1	PE PE	101 101	Maclachlan	American Institutions
C	11	12	4	MWF Th	10 2	PE PE	101 101	Carleton	American Institutions
C	11	13	4	MWF Th	11 1	PE PE	101 101	Webb	American Institutions
C	11	14	4	MWThF	2	PE	112	Patrick	American Institutions
C	11	15	4	MWThF	3	PE	112	Hanna	American Institutions
C	11	16	4	TThS M	9 3	PE PE	101 101	Patrick	American Institutions
C	11	17	4	TThS F	10 1	PE PE	101 101	Hanna	American Institutions
C	11	18	4	TThS W	11 3	PE PE	101 101	Eutsler	American Institutions
C	11	19	4	TWThF	2	PE	102	Webb	American Institutions
C	11	21	4	TWThF	3	PE	102	Webb	American Institutions
C	11	22	4	MWF T	9 1	PE PE	101 101	Patrick	American Institutions
C	11	23	4	TWThF	2	PE	2	Carleton	American Institutions
	**********				**********			**********	
C	12	11	4	TWThF	8	LA	212	Laird	American Institutions

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
C	21	1	3	TThS	8	BN	201	Gaddum	The Physical Sciences
C	21	2	3	TThS	9	BN	201	Mead, L V	The Physical Sciences
C	21	3	3	TThS	10	BN	201	Gaddum	The Physical Sciences
C	21	4	3	MWF	8	BN	201	Mead, L V	The Physical Sciences
C	21	5	3	MWF	9	BN	201	Gaddum	The Physical Sciences
C	21	6	3	MWF	10	BN	201	Mead, L V	The Physical Sciences
C	21	7	3	MWF	2	BN	201	Gaddum	The Physical Sciences
					COURSES FOR TECHNICAL AIDES				
C	23		4	MWF W	1 3-5	BN CH	201 130	Staff Staff	Applied Science - Chem
C	24		4	MWF F	10 2-5	BN BN	210 306	Bless Bless	Applied Science - Phys

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
Student will register for one lecture section, one discussion section, and one laboratory section.									
C	31	1		M	8	CH	AUD		Readng Speakng Writng
C	31	2		M	2	CH	AUD		Readng Speakng Writng
C	31	11	4	MW	1	LA	203	Tew	Readng Speakng Writng
C	31	12	4	MW	2	LA	203	Brown	Readng Speakng Writng
C	31	13	4	TTh	8	LA	203	Clark	Readng Speakng Writng
C	31	14	4	TTh	9	LA	203	Constans	Readng Speakng Writng
C	31	15	4	TTh	10	LA	203	Congleton	Readng Speakng Writng
C	31	16	4	TTh	11	LA	203	Congleton	Readng Speakng Writng
C	31	21	4	TTh	1	LA	203	Stroup	Readng Speakng Writng
C	31	22	4	TTh	2	LA	203	Morris	Readng Speakng Writng
C	31	23	4	WF	8	LA	203	Stroup	Readng Speakng Writng
C	31	24	4	WF	9	LA	203	Morris	Readng Speakng Writng
C	31	25	4	WF	10	LA	203	Murphree	Readng Speakng Writng
C	31	26	4	WF	3	LA	203	Murphree	Readng Speakng Writng
C	31	101		M	1-3	LA	209	Morris,Farris	Readng Speakng Writng
C	31	102		M	3-5	LA	209	Wise, Brown	Readng Speakng Writng
C	31	103		T	1-3	LA	209	Wise,Murphree	Readng Speakng Writng
C	31	104		T	3-5	LA	209	Mounts, Murphree	Readng Speakng Writng
C	31	105		W	8-10	LA	209	Mounts,Clark	Readng Speakng Writng
C	31	106		W	1-3	LA	209	Stroup,Farris	Readng Speakng Writng
C	31	107		W	3-5	LA	209	Congleton, Brown	Readng Speakng Writng
C	31	108		Th	10-12	LA	209	Morris,Clark	Readng Speakng Writng
C	31	109		Th	1-3	LA	209	Murphree,Tew	Readng Speakng Writng
C	31	110		F	1-3	LA	209	Stroup, Farris	Readng Speakng Writng

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
Student will register for both the discussion and the laboratory section.									
C	32	11	4	MWF	1	LA	212	Mounts	Readng Speakng Writng
C	32	120		T	10-12	LA	209	Mounts, Wise	Readng Speakng Writng
**********					**********			**********	
					COURSE FOR TECHNICAL AIDES				
C	33		3	MWF	11	LA	203	Staff	Technical English
					C-41				
C	41	1	3	MWF	9	AG	104	Wilson	Practical Logic
C	41	2	3	MWF	10	AG	104	Little	Practical Logic
					C - 42				
C	42	1	3	TThS	9	PE	1	Kokomoor	Fundamental Math
C	42	2	3	TThS	10	PE	1	Gager	Fundamental Math
C	42	3	3.	TThS	11	PE	1	McInnis	Fundamental Math
C	42	4	3	MWF	8	PE	1	Pirenian	Fundamental Math
C	42	5	3	MWF	10	PE	1	Davis	Fundamental Math
C	42	6	3	MWF	1	PE	1	Dostal	Fundamental Math
C	42	7	3	MWF	2	PE	1	Lang	Fundamental Math
**********					**********			**********	
					COURSE FOR TECHNICAL AIDES				
C	42		4	MWThF	8	PE	11	Staff	Technical Mathematics

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
Student will register for lecture section, one discussion section, and one music hour.									
C	5	1		TTh	9	CH	AUD	Staff	The Humanities
C	51	11	4	TTh	2	LA	212	Brown	The Humanities
C	51	12	4	TTh	10	LA	212	Haines	The Humanities
C	51	13	4	TTh	10	PE	209	Glunt	The Humanities
C	51	14	4	TTh	11	LA	212	Hanna	The Humanities
C	51	15	4	WF	9	LA	212	Brown	The Humanities
C	51	16	4	WF	2	LA	212	Haines	The Humanities
					C-5				
C	51	101		S	9		AUD	Murphree, C L	Music Hour
C	51	102		M	2		AUD	Murphree, C L	Music Hour
C	51	103		T	2		AUD	Murphree, C L	Music Hour
					C-6				
C	61	1	3	MWF	1	SC	101	Hubbell	Biological Science
C	61	2	3	TThS	8	SC	101	Pierce	Biological Science
C	61	3	3	MWF	10	SC	101	Hobbs	Biological Science
C	61	4	3	TThS	11	SC	101	Hobbs	Biological Science
C	61	5	3	MWF	9	SC	101	Byers	Biological Science
C	61	6	3	MWF	11	SC	101	Rogers	Biological Science
C	61	7	3	MWF	2	SC	101	Byers	Biological Science
C	61	8	3	MWF	3	SC	101	Laessle	Biological Science

DEPARTMENTAL COURSES

AGRICULTURAL CHEMISTRY – ACY

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
ACY	125		4	MWF Th	9 1-3	CH CH	AUD AUD	Muhleman Muhleman	Agricultural Chemistry
ACY	203		3	TTh S	11 9-12	AG AG	102 101	Muhleman Muhleman	Analytical Chemistry
ACY	431		*	TTh Lab	8 To Arrange	AG	101	Muhleman	Agricultural Analysis
ACY	561		4	To	Arrange				Animal Bio-Chemistry
ACY	570		*	To	Arrange			Muhleman	Research Agric Chem

AGRICULTURAL ECONOMICS – AS

AS	201		3	TThS	10	AG	210	Greenman	Agricultrl Economics
AS	403		3	MWF	8	AG	210	Greenman	Adv Farm Management
AS	405		3	TThS	11	AG	210	Hamilton	Agricultural Prices
AS	409		3	MWF	11	AG	210	Hamilton	Cooperative Marketing
AS	501		2	M	3-5	AG	210	Noble	Ag Economics Seminar
AS	505		*	To	Arrange			Noble, Greenman	Rsrch Probs Farm Mgt
AS	511		*	To	Arrange			Noble, Hamilton	Rsrch Probs Marketing

AGRICULTURAL ENGINEERING – AG

AC	301		3	TTh M	9 3-5	AG LAB	102	Rogers, F	Drainage & Irrigation
AG	303		3	WF F	8 1-3	AG LAB	102	Rogers, F	Farm Shop
AG	403		2	To	Arrange	AG	106	Rogers, F	Ag Engrng Investigtns
AG	501		2	To	Arrange	AG	106	Rogers, F	Ag Engrng Seminar
AG	570		#	To	Arrange	AG	106	Rogers, F	Research

* Variable credit

\# 3 to 6 credits

AGRONOMY – AY

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
AY	321		3	TTh T	10 1-3	AG AG	302 302	Senn	General Field Crops
AY	325		2	M	1-3	AG	302	Senn	Exhibitng Judgng Crops
AY	329		3	MWF	10	AG	302	Senn	Applied Genetics
AY	331		2	S	8-10 or 10-12	AG	304	Senn	Lab Probs Genetics
AY	426		*	To	Arrange	AG	302	Senn	Probs in Agronomy
AY	570		*	To	Arrange	AG	302	Senn	Research Agronomy

ANIMAL PRODUCTION – AL

AL	309		3	TTh M	11 3-5	AG AG	208 102	Willoughby	Fund Animal Husbandry
AL	413		3	MW T	11 1-3	AG AG	209 102	Felton	Swine Production
AL	415		3	T M	8 1-5	AG LAB	102	Glasscock	Meat Products
AL	417		2	TTh	10	AG	102	Willoughby	Breed History
AL	419		2	MW	9	AG	102	Willoughby	Horse Husbandry
AL	421		1	F	9	AG	102	Shealy and Staff	Seminar
AL	501		*	To	Arrange			Glasscock and Shealy	Adv Animal Production
AL	503		3	To	Arrange			Becker	Animal Nutrition
AL	505		2	To	Arrange			Willoughby	Live Stock Records
AL	509		*	To	Arrange				Prob Animal Nutrition
AL	511		*	To	Arrange			Glasscock and Shealy	Prob Swine Production
AL	513		*	To	Arrange			Glasscock and Shealy	Prob Beef Production
AL	551		*	To	Arrange				Adv Animal Nutrition

* Variable credit

ARCHITECTURE – AE

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
AE	11A	*1	6	MTWF Th	1-5 1-3	PE PE	301 301	Nebi Nebi	Fund of Architecture
AE	11A	#2	3	MWF	1-4	PE	301	Nebi	Fund of Architecture
AE	21A		5	MTWFS	8-11	PE	302	Nebi	Architectural Design
AE	21B		5	MTWFS	8-11	PE	201	Hannaford	Architectural Design
AE	31A		2	TTh	2-5	PE	302	Holbrook	Frhnd Drg Wtr Color
AE	31B		2	TTh	2-5	PE	201	Holbrook	Frhnd Drg Wtr Color
AE	41A		2	TTh 4 hrs	1 To Arrange	PE PE	302 306	Hannaford	History Architecture
AE	41B		2	TTh 4 hrs	1 To Arrange	PE	306	Hannaford	History Architecture
AE	41C		2	TTh 4 hrs	1 To Arrange	PE PE	306 306	Hannaford	Decorative Arts
AE	51A		3	MWF 3 hrs	3-5 To Arrange	PE PE	302 302	Hannaford	Mtls Meths Constr
AE	51B		3	MWF 3 hrs	3-5 To Arrange	PE PE	201 201	Fulton	Mchncl Equip Bldgs
AE	52A		3	MWF	3-5	PE	301	Hannaford	Mtls Meths Constr
AE	52D		2	MW	8-11	PE	302	Fulton	Wkng Draw Bldg Estmts
AE	61A		4	MWF Th 3 hrs	1-3 8-11 To Arrange	PE PE PE	302 302 306	Hannaford	Strctrl Design Bldgs
AE	61B		4	MWF Th 3 hrs	1-3 8-11 To Arrange	PE PE PE	201 201 306	Hannaford	Strctrl Design Bldgs
AE	62A		3	MWF Th	1-3 8-11	PE PE	302 302	Hannaford	Strctrl Design Bldgs
AE	71A		16	48 hrs	To Arrange	PE	201	Hannaford and Staff	Thesis
		PROJECT		JUDGMENTS:					
				T	9-12	PE	300	Staff	
		PROJECT		LABORATORY (BOOK ROOM)					
				Daily	8-12	PE	306	Staff	
				Daily	1-5	PE	306	Staff	

* For one year completion

\# For two year completion

ASTRONOMY – ATY

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
ATY	301		3	MWF	3	PE	10	Mead, L V	Air Navigation

BACTERIOLOGY – BCY

BCY	301	1	4	TTh	9	SC	101	Carroll	Gen Bacteriology
		11		TTh	3-5	SC	104	Carroll	
		12		WF	1-3	SC	104	Carroll	
BCY	308	1	3	Th	11	SC	111	Carroll	Sanitary Lab Practice
		11		WF	3-5	SC	104		
		12		TTh	103	SC	104		
BCY	411		4	MW	9	SC	1	Carroll	Prin of Immunology
				MW	10-12	SC	104		
BCY	500		*	To	Arrange	SC	6	Carroll	Adv Bacteriology
BCY	570		*	To	Arrange	SC	6	Carroll	Research in Bactlgy

BIOLOGY – BLY

BLY	101	1	3	TTh	10	SC	101	Rogers, J S	Gen Animal Biology
		11		MW	3-5	SC	10	Hobbs	
		12		TTh	3-5	SC	10	Goin	
BLY.	102		3	MW	10	SC	111	Byers	Gen Animal Biology
				MW	3-5	SC	7		
BLY	210		4	TTh	9	SC	111	Sherman	Vertebrate Embryology
				MW	2-5	SC	107		
BLY	325		3	MWF	9	SC	111	Robers, J S	Genetics & Evolution
BLY	411		*	To	Arrange	SC		Staff	Probs Animal Biology
BLY	425		4	To	Arrange	SC		Rogers or Hubbell	Field Biology
BLY	505		2	To	Arrange	SC		Rogers, J S	History of Biology

* Variable credit

BOTANY – BTY

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
BTY	303	1	3	MW	8	SC	101	Cody	General Botany
		11		MW	3	SC	2	Cody	
		12		TTh	2	SC	2	Cody	
		13		TTh	3	SC	2	Cody	
BTY	311	1	4	MF	11	SC	1	Cody	Plant Physiology
		11		MF	1-3	SC	1	Cody	
		12		TTh	1-3	SC	1		
BTY	431		4	TTh	8	SC	1	Cody	Plant Histology
				Lab To	Arrange				
BTY	500		4	To	Arrange	SC	1	Cody	Advanced Botany
BTY	555		1	To	Arrange	SC	1	Staff	Botany Seminar
BTY	570		4	To	Arrange	SC	1	Cody	Research in Botany

BUSINESS EDUCATION – BEN

BEN	81		2	MTWTh	8	YN	306	Moorman	Intro Typewriting
BEN	91		2	MTWTh	1	YN	305	Moorman	Intro Shorthand
BEN	94		4	To	Arrange	YN	305	Moorman	Stenography

CHEMICAL ENGINEERING – CG

COURSES FOR TECHNICAL AIDES

CG	11		3	TThS	9	BN	104	Calderwood	Mfg of Pulp & Paper
CG	15		3	M	1	BN	104	Walker	Laboratory Practice
				MW	2-5				
CG	17		2	MW	10	BN	104	Beisler	Laboratory Calculatns
	**********				**********				**********
CG	346		3	TThS	10	BN	209		Indstrl Stoichiometry
CG	361		3	TThS	11	BN	209	Beisler	Matrls of Engineering
CG	444		2	MT	1-4	BN	108	Beisler	Chemical Eng Lab
CG	448		3	MWF	11	BN	209	Beisler	Prin of Chem Engrng
CG	457		2	W	1-5	EG	200	Tyner	Chem Eng Plant Design
OG	531		3	To	Arrange			Morgen	Adv Chem Eng Thermo
CG	541		3	To	Arrange			Beisler	Adv Unit Operations

CHEMISTRY - CY

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
CY	101	1	4	MWF	10	CH	AUD	Jackson	General Chemistry
		11		M	2-5	CH	130	Jackson	General Chemistry Lab
		12		T	2-5	CH	130	Jackson	General Chemistry Lab
		13		F	2-5	CH	130	Jackson	General Chemistry Lab
CY	111		1	T	1	CH	212	Jackson	General Chemistry
CY	201		4	MWF	9	CH	112	Heath	Analytical Chem (Qual)
				M	2-5	CH	230	Heath	
CY	203		3	TTh	11	CH	112	Heath	Analytical Chem (Qual)
				W	2-5	CH	230	Heath	
CY	211		1	W	2-5	CH	230	Heath	Analytical Chem (Qual)
CY	215		3	TTh	10	CH	110	Black	Chem of Water Treatmnt
				M	2-5	CH	114		
CY	262		5	MWF	10	CH	110	Pollard	Organic Chemistry
				TTh	2-5	CH	230		
CY	301		4	MWF	9	CH	212	Leigh	Organic Chemistry
				T	2-5	CH	230		
CY	311		1	Th	2-5	CH	230	Leigh	Organic Chemistry
CY	401		4	MWF	11	CH	110	Hawkins	Physical Chemistry
				F	2-5	CH	204		
CY	411		3	TTh	11	CH	110	Black and Pollard	Advanced Chemistry
			Lab	To	Arrange				
CY	481		.5	To	Arrange			Pollard	Chemical Literature
CY	517		3	TTh	9	CH	110	Pollard	Adv Organic Chemistry
			Lab	To	Arrange				
CY	523		3	MWF	9	CH	110	Hawkins	Spec Topics Phys Chem
CY	534		3	To	Arrange			Black	Adv Sanitary Chemistry
CY	570		2-6	To	Arrange			Heath or Jackson	Rsrch Inorganic Chem
CY	571		2-6	To	Arrange			Black	Rsrch Analytical Chem
CY	572		2-6	To	Arrange			Leigh or Pollard	Rsrch Organic Chem
CY	573		2-6	To	Arrange			Hawkins or Jackson	Rsrch Physical Chem
CY	574		2-6	To	Arrange			Leigh or Hawkins	Rsrch Naval Stores
CY	575		2-6	To	Arrange			Black	Rsrch Sanitary Chem

CIVIL ENGINEERING – CL

DEPT	COURSE	SEC	CRED	DAYS	HOURS	BLDG	ROOM	INSTRUCTOR	COURSE TITLE
					COURSES FOR TECHNICAL AIDES				
CL	11		3	MW Th	10 1-4	HL HL	303 205	Staff	Practical Surveying
CL	12		3	TTh W	10 1-4	HL HL	301 301	Keith	Design Simple Structrs
CL	16		3	TThS	11	HL	303	Staff	Elemnts Industrl Hyg
CL	17		3	TThS	9	HL	303	Emerson	Sewage Plant Operatns
CL	19		3	TThS	10	HL	303	Emerson	Water Plant Operation
CL	21		3	MW M	9 1-4	HL HL	303 205	Staff	Elemntry Highwy Constr
	**********				**********			**********	
CL	233		3	TTh T	10 2-5	HL HL	302 205	Keith Keith	Elemntry Surveying
CL	327		4	MWF Th	10 2-5	HL HL	302 101	Williams,C D Williams,C D	Hydraulics
CL	331		3	TTh S	9 9-12	HL HL	302 301	Williams,C D Williams,C D	Railway Engineering
CL	425		3	MW M	11 1-4	HL HL	302 301	Emerson Emerson	Water & Sewerage
CL	433		3	Th T	4 1-5	HL HL	301 301	Keith Keith	Thry Reinforce Concrete
CL	434		3	WF Th	11 1-4	HL HL	301 301	Keith Keith	Reinfrcd Concrt Design
CL	435		3	WF W	9 1-4	HL HL	301 301	Keith Keith	Structural Engineering
CL	436		3	WF F	10 1-4	HL HL	301 301	Keith Keith	Structural Engineering
CL	427		3	M TTh	9 1-4	HL HL	302 303	Emerson Emerson	Sanitary Lab Practice
CL	438		3	To	Arrange			Williams,C D	Statcly Indtrmnt Strctrs

DAIRYING – DY

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
DY	311		4	MWF T	10 3-5	DL DL	101 101	Fouts and Arnold	Principles Dairying
DY	316		3	TTh M	10 1-4	DL DL	101 101	Fouts	Condnsd & Dry Milk
DY	413		4	MWF W	11 2-5	DL DL	101 101	Fouts	Mkt Mlk & Mlk Plt Prod
DY	420		*	To	Arrange			Fouts	Probs Dairy Technology
DY	521		*	To	Arrange			Fouts	Probs Mlk & Mlk Prods
DY	523		*	To	Arrange			Becker	Probs Dairy Productn

ECONOMICS – ES
BUSINESS ADMINISTRATION – BS

ES	203 Lab		4	TThS M	8 3-5	LA LA	10 10	Anderson	Elementary Statistics
ES	205		3	MWF	10	PE	205	Eldridge	Econ Foun Mod Life
ES	208		3	TThS	9	LA	10	Anderson	Econ His of U S
BS	211		3	MWF	9	SC	202	Beights	Elementary Accounting
BS	221		3	MWF	11	PE	206	Dolbeare	Elem Business Finance
BS	241		3	MWF	2	PE	10	Chace	Business Org & Pract
ES	282		2	TThS	11	LA	204	Diettrich	Util of Our Resources
BS	310		3	MWF	10	SC	202	Beights	Accountng Math & Machns
BS	311		3	TThS	11	SC	202	Beights	Accounting Principles
BS	314		3	MWF	12	SC	202	Beights	Fed Inc Tax Individls
ES	321		3	MWF	9	PE	206	Dolbeare	Fncl Orgnztn Society
ES	322		3	TThS	8	PE	206	Dolbeare	Fncl Orgnztn Soceity
ES	327		3	TThS	10	PE	206	Bigham	Public Finance
ES	335		3	MWF	9	LA	311	Eutsler	Econs of Marketing
ES	351		3	TThS	9	PE	206	Bigham	Elemnts Transportatn
BS	361		3	MWF	11	PE	10	Chace	Property Insurance
ES	372		3	TThS	10	PE	10	Chace	Labor Economics

* Variable credit

ECONOMICS – ES CONTINUED
BUSINESS ADMINISTRATION – BS

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
ES	381		3	MWF	11	LA	204	Diettrich	Geog North America
BS	401		3	MWF	10	LA	311		Business Law
ES	404		3	MWF	10	LA	10	Anderson	Govt Contrl Business
ES	407		3	MWF	11	PE	112	Eldridge	Econ Prins & Probs
BS	411		3	TThS	10	SC	202	Beights	Advanced Accounting
BS	422		3	TThS	9	PE	10	Dietz	Investments
BS	425		3	TThS	9	PE	209	Dolbeare	Bankng Prins & Pract
BS	427		3	TThS	8	PE	10	Dietz	Prins Probs Corp Fnc
ES	454		3	MWF	9	PE	4	Bigham	Prins Pub Util Econs
BS	461		3	MWF	2	LA	311	Eutsler	Life Insurance
BS	464		3	TThS	11	PE	10	Chace	Real Est Prins & Probs
ES	469		3	TThS	11	LA	10	Anderson	Business Forecasting
ES	485		3	TThS	10	LA	204	Diettrich	Intrnatnl Econ Relatns
ES	505		3	MWF	2	PE	101	Eldridge	Devlmt Econ Thought

EDUCATION – EN

EN	241		3	MWF	9	YN	134	Simmons	Intro to Education
EN	305		3	MWF	10	YN	132	Leps	Devlmt Organizatn Educ.
EN	306		3	MWF	9	YN	132	Garris	Vocational Education
EN	385		3	MWF	10	YN	134	Garris	Child Development
EN	397		3	MWF	11	YN	134	Lewis	Sec Sch Cur & Instrctn
EN	401		3	T	7-9:30 PM	YN	132	Leps	School Administration
EN	403		3	TThS	9	YN	132	Norman	Prins & Philos Educ
EN	409		3	To	Arrange			Garris	Supvsd Tchg Voc Agric
EN	411		2	TTh	10	YN	132	Garris	Spec Meths Voc Agric
*EN	421		3	To	Arrange			Leps	Student Teaching
*EN	422		3	To	Arrange			Leps	Student Teaching

*Classes in EN 421 and EN 422 will meet the first Wednesday of the semester in YN 134 at 4 P M.

EDUCATION – EN CONTINUED

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
EN	472		3	MWF	8	YN	SHOP	Strickland	Meth & Org Ind Arts
EN	501		3	W	7-9:30 PM	YN	132	Green	Elem Sch Curriculum
EN	508		3	F	7-9:30 PM	YN	132	Norman	Democracy & Education
EN	519		3	Th	7-9:30 PM	YN	132	Lewis	High School Curriculum
EN	536		3	M	7-9:30 PM	YN	132	Jones	Supervsn Elem School
*EN	551		3	To	Arrange			Simmons, Leps	Fla Wkshop: Prins' Div
EN	562		3	T	7-9:30 PM	YN	134	Crago	Guidance & Counselng
EN	567		3	S	9-11:30 AM	YN	134	Garris	Probs Agric Educatn
EN	591		3	T	7-9:30	YN	132	Leps	Pub Sch Administratn

ELECTRICAL ENGINEERING – EL

					COURSES FOR TECHNICAL AIDES				
EL	11		3	MW F	8 1-4	BN BN	209 104	Smith Smith	Fund of Electricity
EL	13		3	MWF	9	BN	104	Smith	Wiring of Buildings
EL	15		3	MW T	10 1-4	BN SE	209 11th	Manchesian Manchesian	Radio Fundamentals
EL	16		3	TTh Th	10 1-4	BN BN	104 104	Schrader, G Schrader, G	Industrial Control
EL	17		3	MW M	11 1-4	BN BN	104 106	Schrader, G Schrader, G	Industrl Electricity
EL	19		3	TTh W	9 1-4	BN SE	209 11th	Manchesian	Radio Receiving Sets
	**********				**********				**********
EL	341		3	MWF	9	EG	209	Smith, E F	Elems Elec Engrng
EL	349		1	F	2-5	BN	106	Smith, E F	Dynamo Laboratory
EL	441		1	F	1	EG	209	Smith, E F	Elec Engrng Seminar

*For County Superintendents and Supervisors and those getting ready to be Supervisors. They will register at first study conference.

ELECTRICAL ENGINEERING – EL CONTINUED

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
EL	445		3	TTh Th	9 1-4	EG BN	209 106	Smith, E F Smith, E F	Elec Instr, Mtrs & Relays Laboratory
EL	446		3	MWF	10	EG	209	Staff	Elec Power Transmissn
EL	453		1	Th	6-9 PM	RA		Staff	Radio Statn Operation
EL	466		5	MWF M	9 1-6	EG SE	202 11th	Staff Staff	Radio Engineering Laboratory

ENGLISH - EH

EH	133		4	MWF	2	LA	307	Congleton	Effective Writing
EH	215		3	MWF	9	LA	210	Haines	Literary Mastrs Amer
EH	217		3	TThS	11	LA	210	Robertson	Literary Mastrs Eng
EH	223		3	MWF	2	LA	210	Murphree	Mstrpcs World Lit
EH	301		3	TThS	10	LA	210	Robertson	Shakespeare
EH	303		3	MWF	9	LA	314	Farris	Major Poets Victrn Prd
EH	327		2	TTh	8	LA	314	Farris	Imaginative Writing
EH	355		3	MWF	1	LA	210	Clark	Business Writing
EH	363		3	TThS	9	LA	210	Mounts	Contemp Lit: Drama
EH	399		3	MWF	10	LA	210	Congleton	Intro Study of Lit
EH	401		3	MWF	8	LA	314	Farris	American Literature
EH	413		3	To	Arrange			Stroup	Renaissance in Eng
EH	501		3	MWF	8	LA	314	Farris	American Literature
EH	511		3	To	Arrange			Morris	Old English
EH	513		3	To	Arrange			Stroup	Renaissance in Eng
EH	529		1	To	Arrange			Stroup	Graduate Seminar
EH	530		*	To	Arrange			Staff	Individual Work

*Variable credit

ENTOMOLOGY - EY

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
EY	301	1 11 12	4	TTh T W	9 3-5 1-3	AG AG AG	308 308 308	Creighton and Hixson	Intro to Entomology
EY	304		5	MWF MT	10 1-3	AG AG	308 308	Creighton and Hixson	Adv Entomology
EY	405		3	M M	9 3-5	AG	308	Creighton	Insect Control
EY	420		3	MF T	8 3-5	AG AG	308 308	Hisxon	Med & Vet Entomology
EY	503		3	To	Arrange	AG	306	Staff	Probs in Entomology
EY	507		3	To	Arrange	AG	306	Tissot	Adv Insect Taxonomy
EY	515		3	To	Arrange	AG	306	Creighton	Biol & Nat Control

FORESTRY - FY

FY	220		2	MW	10	HT	412	Newins	Intro to Forestry
FY	301		4	TTh Th	8 1-5	HT HT	412 412	Newins	Dendrology
FY	302		4	TTh T	10 1-5	HT HT	412 412	Ziegler	Forest Mensuration
FY	306		2	MW	8	HT	412	Miller	Forest Protection
FY	311		3	TTh F	11 1-5	HT HT	412 412	Miller	Foundatns Silviculture
FY	409		2	To	Arrange			Ziegler	Forest Finance
FY	413		3	To	Arrange			Miller	Regional Silviculture
FY	419		3	To	Arrange			Miller	Prin Forest Managemt
FY	431		#	To	Arrange			Staff	Forest Probs Seminar

2 to 5 credits

FRENCH FH

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG	ROOM	INSTRUCTOR	COURSE TITLE
FH	33		3	TThS	10	BU	101	Atkin	First Year French
FH	35		6	MTWThFS	8	BU	205	Brunet	First Year French
FH	201		3	TThS	10	BU	205	Brunet	Second Year French
FH	305		3	TThS	9	BU	101	Atkin	Conversatn Compositn
FH	307		3	MWF or	9 arrange	BU	101	Atkin	Mastrpcs French Lit
FH	430		*	To	Arrange			Atkin and Brunet	Individual Work
FH	530		*	To	Arrange			Atkin and Brunet	Individual Work

GEOGRAPHY – GPY

GPY	203		3	MWF	8	LA	204	Diettrich	Elemts World Geog

GEOLOGY – GY

GY	303		3	MWF	10	SC	106	Hubbell	General Geology

GERMAN – GN

GN	33	1	3	MWF	9	BU	305	Jones	First Year German
GN	33	2	3	TThS	9	BU	305	Hauptmann	First Year German
GN	35		6	MTWThFS	8	BU	305	Jones	First Year German
GN	205		6	MTWThFS	10	BU	305	Jones	Second Year German
GN	325		3	To	Arrange	BU	302	Hauptmann	Scientific German
GN	430		*	To	Arrange	BU	303	Jones	Individual Work
GN	530		*	To	Arrange	BU	303	Jones	Individual Work

* Variable credit

GREEK – GK

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
GK	33		3	MWF	9	BU	205	Brunet	First Year Greek
GK	201		3	MWF	11	BU	205	Brunet	Second Year Greek

HEALTH AND PHYSICAL EDUCATION – HPL

HPL	131		3	MW Th	1 1-4	BB BB	COURT COURT	Lieb & Staff Lieb & Staff	Theory & Practice I
HPL	231		3	MW T	2 1-4	BB BB	COURT COURT	Lieb & Staff Lieb & Staff	Theory & Practice II
HPL	387		3	T	7-9:30 PM	YN	138	Strickland and Salt	Health Education
HPL	411		3	MWF	9	YN	138	Steve and Salt	Prins Adm Phys Educ
HPL	533		3	To	Arrange			Stevens and Salt	Probs Phys Education

HISTORY – HY

HY	241		4	MTWF	8	PE	112	Leake	Hist Modern World
HY	251		3	MWF	10	PE	112	Leake	Florida History
HY	301		3	TThS	10	PE	112	Leake	Amer Hist 1492 - 1776
HY	307		3	MWF	9	PE	112	Leake	Renaissance & Reformt
HY	311		3	TThS	11	PE	208	Payne	Eng Hist 1688 - 1815
HY	313		3	MWF	11	PE	208	Glunt	Europe Dur Middle Age
HY	315		3	TThS	8	PE	208	Glunt	Latin Amer to 1850
HY	331		3	MWF	9	PE	208	Payne	Survey Amer History
HY	401		3	MWF	10	PE	208	Payne	Ancient Civilizations
HY	509		3	To	Arrange	PE	112A	Leake	Seminar Amer History

HORTICULTURE - HE

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
HE	201		3	TTh F	8 1-3	AG AG	210 209	Wolfe Watkins	Prins Horticulture
HE	315		3	TTh M	8 3-5	AG AG	209 209	Abbott Abbott	Citrus Culture
HE	317		3	TTh T	11 3-5	AG Greenhouse	209	Abbott Abbott	Plant Propagation
HE	423		3	MWF	8	AG	209	Wolfe	Maj Subtrpcl Fruits
HE	427		3	TTh M	11 1-3	Greenhouse Greenhouse		Watkins	Elem Floriculture
HE	429		3	F TW	10 3-5	Greenhouse Greenhouse		Wolfe and Watkins Wolfe and Watkins	Ornam Horticulture
HE	503		1	Th	4	AG	209	Wolfe	Horticulture Seminar
HE	514		3	To	Arrange			Abbott	Adv Citriculture
HE	570		*	To	Arrange			Wolfe & Staff	Rsrch in Horticulture

INDUSTRIAL ARTS EDUCATION - IN

IN	111		2	To	Arrange	YN	SHOP	Strickland	Mechanical Drawing
IN	112		2	To	Arrange	YN	SHOP	Strickland	Mechanical Drawing
IN	211		2	To	Arrange	YN	SHOP	Strickland	General Shop
IN	305		3	To	Arrange	YN	SHOP	Strickland	Design & Constructn
IN	411		3	To	Arrange	YN	SHOP	Strickland	Gen Mach Shop Mtl Work

INDUSTRIAL ENGINEERING - IG

IG	365		3	MWF	10	EG	211	Yeaton	Eng Mechncs - Statics
IG	366		3	TThS	9	EG	211	Eshleman	Eng Meohncs - Dynamics
IG	367		3	TThS	10	EG	213	Yeaton	Strength of Materials
IG	370		2	MW	9	EG	300	Yeaton	Job Evaluation
IG	463		3	TThS	10	EG	300	Eshleman	Specftns, Eng Rltns, & Indstrl Safety
IG	469		4	MWF T	11 2-5	EG EG	300 304	Eshleman Eshleman	Plnt Locatn & Layout
IG	477		3	TTh Th	11 2-5	EG EG	300 300	Yeaton Yeaton	Motion & Time Study

* Variable credit

JOURNALISM - JM

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
JM	213		3	MWF	9	LW	112	Emig	Propaganda
JM	215		3	TThS	11	LW	112	Emig	Hist of Journalism
JM	301		4	TTh TTh	11 2-5	LW LW	201 201	Lowry Lowry	News Writng & Editng
JM	317		3	MWF	2	LW	201	Lowry	Mechanics Publishing
JM	403		3	TThS	9	LW	112	Emig	Newspr & Radio Advt
JM	407		3	MWF	10	LW	112	Emig	Interpreting News
JM	409		3	MWF	9	LW	201	Lowry	Law of the Press
JM	411		3	TThS	10	LW	112	Emig	Public Relations
JM	503		3	To	Arrange			Lowry	Spec Probs Newspr Prod
JM	505		3	To	Arrange			Emig	Spec Probs Pub Opinion

LATIN - LN

LN	33		3	TThS	9	BU	205	Brunet	First Year Latin
LN	201		3	MWF	3	BU	205	Brunet	Second Year Latin

LAW - LW

LW	301		5	MTWThF	9	LW	204	Trusler	Torts
LW	303		3	MWF	10	LW	105	TeSelle	Contracts I
LW	305		4	MTThF	11	LW	105	Pridgen	Criminal Law
LW	309		2	WF	8	LW	105	Day	Property I
LW	401		4	MWFS	10	LW	204	Slagle	U S Const Law
LW	402		4	MWThF	9	LW	105	TeSelle	Evidence
LW	409		3	TThS	11	LW	204	Day	Property III
LW	413		3	MWF	8	LW	204	Crandall	Fla Civil
LW	417		2	TS	9	LW	105	Day	Partnership
LW	418		3	TThS	8	LW	204	Crandall	Taxation
LW	505		2	WF	9	LW	202	Slagle	Fed Jurisdiction
LW	508		3	MTTh	11	LW	202	Slagle	Conflicts
LW	515		2	MW	10	LW	202	Trusler	Mortgages
LW	519		2	TTh	10	LW	105	TeSelle	Trial Practice
LW	532		2	WF	11	LW	202	Day	Landlord & Tenant
LW	601		1-3	To	Arrange			Trusler	Legal Research

MATHEMATICS – MS

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
MS	105	*1	4	MWFS	9	PE	2	Gager	Basic Mathematics
MS	105	2	4	MWFS	10	PE	2	McInnis	Basic Mathematics
MS	105	*3	4	TWThF	1	PE	2	Pirenian	Basic Mathematics
MS	105	*4	4	TWThS	8	PE	2	Dostal	Basic Mathematics
MS	105	5	4	MWFS	9	PE	11	Davis	Basic Mathematics
MS	105	*6	4	MTWF	1	PE	11	Lang	Basic Mathematics
MS	106		4	MWThF	1	PE	4	Gager	Basic Mathematics
MS	325		3	MWF	10	PE	11	Kokomoor	Adv Gen Mathematics
MS	353	1	4	MWFS	9	PE	102	Simpson	Differntl Calculus
MS	353	2	4	MWFS	8	PE	101	Lang	Differntl Calculus
MS	353	3	4	MWFS	8	PE	4	Davis	Differntl Calculus
MS	354		4	MWFS	8	PE	102	Kokomoor	Integral Calculus
MS	420		3	To	Arrange			Dostal	Differntl Equations
MS	430		3	To	Arrange			Staff	Individual Work
MS	431		3	To	Arrange			Pirenian	College Geometry
MS	530		3	To	Arrange			Staff	Individual Work

MECHANICAL ENGINEERING – ML

					COURSES FOR TECHNICAL AIDES				
ML	11		3	M	1	BA	101	Leggett	Wood Shop Practice
				M	2-5	BA	101	Leggett	
				T	2-5	BA	101	Leggett	
ML	12		3	M	10	EG	202	Frash	Mechanical Drawing
		(6 hrs lab to be arranged)				EG	304	Frash	
ML	15		3	T	10	EG	213	Leggett	Welding and Cutting
				MF	2-5	BA	103	Leggett	
ML	17		3	Th	11	EG	209	Leggett	Machine Shop Practice
				WTh	2-5	BA	102	Leggett	
ML	19		3	MW	10	EG	300	Thompson	Intrnl Combstn Engines
				T	2-5	EG	103	Thompson	

* Freshmen only

MECHANICAL ENGINEERING - ML CONTINUED

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
ML	21		3	MWF W	11 2-5	EG EG	202 103	Thompson Thompson	Aerodynamics
ML	23		3	TTh T	11 2-5	EG EG	202 103	Ebaugh Ebaugh	Refrigeration
ML	25		3	TTh W	10 2-5	EG EG	202 103	Ebaugh Ebaugh	Air Conditioning
ML	27		3	TTh Th	9 2-5	EG EG	213 103	Ebaugh Ebaugh	Steam Power Plants
ML	32		3	MWF	11	EG	202	Thompson	Fund of Aeroplane
	**********				**********			**********	
ML	181		2	T	11	BN	203	Frash	Engineering Drawing

Each student registering for ML 181 must select two two-hour drawing periods per week by conference with instructor.

ML	281		3	TTh T	9 2-5	EG EG	300 304	Frash	Elementary Design
ML	282		3	TTh T	10 2-5	EG EG	209 304	Frash	Kinematics & Mechansm
ML	385		3	MWF	11	EG	213	Ebaugh	Thermodynamics
ML	387		1	M M	1 2-5	EG EG	213 103	Ebaugh	Mechanical Lab
ML	481		3	MWF	9	EG	213	Thompson	Intrnl Combstn Engns
ML	483		1	M M	1 2-5	EG EG	300 103	Thompson	Mechanical Lab
ML	489		3	W W	1 2-6	EG BA	102 102	Leggett	Mfg Operations
ML	491		4	MWF F	11 2-5	EG EG	211 304	Bourke	Machine Design

MILITARY SCIENCE - MY

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
MY	101	1	1	MW	9	AG	108	Joyner	1st Year Infantry
MY	101	2	1	MW	10	AG	108	Joyner	1st Year Infantry
MY	101	3	1	MW	1	AG	108	Humphries	1st Year Infantry
MY	101	4	1	TTh	9	AG	108	Joyner	1st Year Infantry
MY	101	5	1	TTh	10	AG	108	Joyner	1st Year Infantry
MY	101	6	1	TTh	11	AG	108	Humphries	1st Year Infantry
MY	201	1	1	TTh	1	AG	108	Humphries	2nd Year Infantry
MY	201	2	1	TTh	8	AG	108	Humphries	2nd Year Infantry

IN ADDITION TO ONE OF THE THEORY SECTIONS AS LISTED ABOVE, ALL STUDENTS MUST BE ASSIGNED TO THE FOLLOWING DRILL SECTION:

MY		140		MWF	11	Drill	Field		

MUSIC - MSC

MSC	101		1	MTh	7 PM	AUD		Brown	Orchestra Music
MSC	301		2	M Lab to	7 PM arrange	AUD		DeBruyn	Rudimnts Vocal Music
MSC	310		2	WF	2	AUD		Murphree,C L	Music Appreciation
MSC	311		2	M Lab to	1 arrange	AUD		DeBruyn	Interpretive Singing
BD	111		1	MWF	5	AUD		Brown	First Year Band
BD	211		1	MWF	5	AUD		Brown	Second Year Band

PAINTING – PG

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
PG	11A	*1	6	MTWF Th	1-5 1-4	PE PE	109 109	Holbrook	Fndmtls Pictrl Art
PG	11A	**2	3	MWF	1-4	PE	109	Holbrook	Fndmtls Pictrl Art
PG	21A		3	MWF 3 hrs	8-10 To Arrange	PE PE	300 300	Holbrook	Pictrl Composition
PG	21B		5	Daily 3 hrs #MWF	8-10 To Arrange 8-10	PE PE	300 300	Holbrook	Pictrl Composition
PG	22A		4	12 hrs	To Arrange	PE	109	Holbrook	Commercial Design
PG	31A		6	MWF TThS #MWF	10-12 8-10 10-12	PE PE	300 300	Holbrook	Freehand Drawing
PG	31B		4	Daily #MWF	10-12 10-12	PE	300	Holbrook	Freehand Drawing
PG	32A		4	12 hrs	To Arrange	PE	300	Holbrook	Freehand Drawing
PG	32B		4	12 hrs	To Arrange	PE	300	Holbrook	Freehand Drawing
PG	41A		2	MW 4 hrs	5 To Arrange	PE PE	306 306	Holbrook	Hist of Painting
PG	51A		5	MTWThF #MWF	2-5 2-5	PE	300	Holbrook	Oil Painting
PG	51B		5	MTWThF #MWF	2-5 2-5	PE	300	Holbrook	Oil Painting
PG	52A		4	12 hrs	To Arrange	PE	300	Holbrook	Oil Painting
PG	52B		3	TTh 3 hrs	2-5 To Arrange	PE PE	300 300	Holbrook	Water Color
PG	61A		16	48 hrs	To Arrange	PE	300	Staff	Thesis
		PROJECT JUDGMENTS:							
				T	9-12	PE	300	Staff	
		PROJECT LABORATORY (BOOK ROOM)							
				Daily Daily	8-12 1-5	PE PE	306 306	Staff Staff	

* For one year completion

** For two year completion

\# Criticism

PHARMACOGNOSY – PGY

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
PGY	221		3	MWF	8-10	CH	316	Johnson, C H	Practcl Pharmacognsy
PGY	242		2	To	Arrange			Johnson, C H	Drug Plant Histology
PGY	501		4	To	Arrange			Johnson, C H	Microscopy Drugs
PGY	521		2	To	Arrange			Johnson, C H	Probs Pharmacognosy
PGY	525		2-4	To	Arrange			Johnson, C H	Drug Plant Analysis

PHARMACOLOGY PLY

PLY	261		2	WF TTh	8 10	CH	400	Mattis	Applied Physiology
PLY	351		3	MWF	9	CH	400	Mattis	Pharmacolcgy
PLY	451		3	MWF	10	CH	316	Mattis	Prins Biologicals
PLY	455		3	WF F	11 1-3	CH CH	316 316	Foote	New Remedies
PLY	551		4	To	Arrange			Mattis	Probs Pharmacolcgy

PHARMACY PHY

PHY	211		5	TThS M	9 1-5	CH CH	402 306	Husa	Inorganic Pharmacy
PHY	223		3	TTh Th	11 1-4	CH CH	402 306	Husa	Galenical Pharmacy
PHY	354		5	MWF TW	9 1-4	CH CH	402 306	Foote	Org & Anal Pharmcy
PHY	361		4	TTh MTh	10 1-4	CH CH	402 306	Husa	Prscrptns & Dispnsng
PHY	381		2	TTh	11	CH	316	Johnson, C H	Pharmctl Jurisprdnc
PHY	503		2	To	Arrange			Husa	Advanced Pharmacy
PHY	553		2	To	Arrange			Foote	Synthc Pharmctcls

PHYSICAL EDUCATION

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
PFP		1		MWF	8	Field		Lieb	Physical Fitness
PFP		2		MWF	9	Field		Lieb	Physical Fitness
PFP		3		MWF	10	Field		Lieb	Physical Fitness
PFP		4		MWF	11	Field		Lieb	Physical Fitness
PFP		5		TThS	8	Field		Lieb	Physical Fitness
PFP		6		TThS	9	Field		Lieb	Physical Fitness
PFP		7		TThS	10	Field		Lieb	Physical Fitness

PHYSICS – PS

PS	101		3	MWF Th	9 11	BN BN	205 203	Bless Perry	General Physics
PS	205	1	3	MWF Th	11 11	BN BN	205 203	Williamson Perry	Gen Physics (Engnrs)
PS	205	2	3	MWF Th	10 11	BN BN	205 203	Perry Perry	Gen Physics (Engnrs)
PS	207	1	1	M	2-5	BN	306	Perry	Lab for PS 101 & 205
PS	207	2	1	T	2-5	BN	306	Perry	Lab for PS 101 & 205
PS	207	3	1	W	2-5	BN	306	Perry	Lab for PS 101 & 205
PS	207	4	1	Th	2-5	BN	306	Perry	Lab for PS 101 & 205
PS	307*		4	To	Arrange	BN	304	Swanson	Heat
PS	311		3	MWF	10	BN	203	Knowles	Electrcty & Magntsm
PS	313		1	To	Arrange	BN	303	Knowles	Electrcl Measrmnts
PS	317*		2	To	Arrange			Swanson	Nuclear Physics

* Only one of the two courses (PS 307 and PS 317) will be given depending on demand.

PLANT PATHOLOGY - PT

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
PT	321		3	MWF	1-3	HT	407	Weber	Plant Pathology
PT	325		3	MWF	10-12	HT	407	Weber	Forest Pathology
PT	424		3	T TTh	9 1-3	HT HT	407 407	Weber	Field Crop Diseases
PT	523		*	To	Arrange	HT	407	Weber	Adv Plant Pathology
PT	570		*	To	Arrange	HT	407	Weber	Resrch Plnt Pathlgy

POLITICAL SCIENCE - PCL

PCL	241		4	M TThS	1 10	LA LA	307 307	Laird	Poltl Found Mod Life
PCL	309		3	MWF	1	PE	112	Carleton	International Relatns
PCL	313		3	MWF	2	PE	208	Payne	Amer Govt & Politics
PCL	403		3	TThS	11	LA	307	Laird	International Law
PCL	407		3	MWF	10	LA	307	Laird	Comparative Govt
PCL	411		3	MWF	9	LA	307	Laird	Public Administratn
PCL	513		3	To	Arrange			Laird	Seminar Poltcl Sci

PORTUGUESE - PE

PE	33		3	TThS	11	BU	101	Atkin	1st Year Portuguese
PE	201		3	MWF	10	BU	101	Atkin	2nd Year Portuguese

POULTRY HUSBANDRY - PY

PY	301		3	MW T	9 1-3	PO PO		Moore, O K Mehrhof	Fundmls Poultry Prod
PY	415		3	TTh M	9 3-5	PO PO		Mehrhof	Poultry Management
PY	427		3	TTh M	10 1-3	PO PO		Moore, O K	Poultry Breeding
PY	429		*	To	Arrange	PO		Mehrhof	Poultry Prod Probs
PY	531		3	To	Arrange	PO		Mehrhof	Adv Poultry Mgt
PY	570		*	To	Arrange	PO		Mehrhof	Poultry Research

* Variable credit

PSYCHOLOGY – PSY

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
PSY	201	1	3	MWF	11	PE	114	Williams, O	General Psychology
PSY	201	2	3	TThS	10	PE	114	Thompson	General Psychology
PSY	304		3	TTh	1-3	PE	114	Williams, O	Expermnl Psychology
PSY	306		3	MWF	10	PE	114	Williams, O	Applied Psychology
PSY	309		3	MWF	9	PE	114	Hinckley	Personality Devlmt
PSY	314		3	To	Arrange	PE	114	Williams, O	Hist & Systems Psy
PSY	402		3	To	Arrange	PE	114	Thompson	Readngs Expermnl Psy
PSY	405		3	TThS	9	PE	114	Thompson	Psychologcl Measrmnt
PSY	410		3	To	Arrange	PE	114	Hinckley	Adv Abnormal Psych
PSY	430		*	To	Arrange	PE	114	Hinckley	Individual Work
PSY	502		3	To	Arrange	PE	114	Thompson	Readngs Expermnl Psy
PSY	505		3	TThS	9	PE	114	Thompson	Psychologcl Measrmnt
PSY	510		3	To	Arrange	PE	114	Hinckley	Adv Abnormal Psych
PSY	514		3	To	Arrange	PE	114	Williams, O	Hist & Systems Psy
PSY	530		*	To	Arrange	PE	114	Hinckley	Individual Work

SOCIOLOGY – SY

SY	241		4	MTWTh	2	PE	4	Maclachlan	Soc Found Mod Life
SY	316		3	To	Arrange			Bristol, L R	Field of Social Work
SY	344		3	MWF	10	PE	4	Maclachlan	Marriage & Family
SY	450		3	To	Arrange			Maclachlan	Populatn & Public Affrs
SY	550		3	To	Arrange			Maclachlan	Populatn & Public Affrs
SY	560		3	To	Arrange			Maclachlan and Staff	Special Topics

* Variable credit

SOILS - SLS

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
SLS	301	1 11 12	3	MW M T	9 1-3 3-5	AG AG AG	208 202 202	Henderson Mercer	Soils.
SLS	401		3	TTh Th	9 3-5	AG AG	208 202	Henderson	Soil Morphology
SLS	405		3	MW W	11 3-5	AG AG	208 202	Smith, F B & Mercer	Soil Microbiology
SLS	407		3	MW W	10 1-3	AG AG	208 202	Henderson	Soil Physics
SLS	420		*	To	Arrange	AG	206	Henderson	Spec Probs in Soils
SLS	501		3	Th TTh	11 1-3	AG AG	204 204	Smith, F B	Adv Soil Microbiolgy
SLS	570		*	To	Arrange	AG	206	Smith, F B	Research in Soils

SPANISH - SH

SH	33		3	MWF	9	BU	301	Trujillo	First Year Spanish
SH	201		3	MWF	9	BU	201	Hauptmann	Second Year Spanish
SH	205		6	MTWThFS	10	BU	301	Hauptmann	Second Year Spanish
SH	430		*	To	Arrange			Hauptmann	Individual Work
SH	530		*	To	Arrange			Hauptmann	Individual Work

* Variable credit

SPEECH – SCH

DEPT.	COURSE	SEC.	CRED.	DAYS	HOURS	BLDG.	ROOM	INSTRUCTOR	COURSE TITLE
SCH	241	1	3	MWF	9	PE	205	Tew	Effective Speaking
SCH	241	2	3	MWF	8	PE	205	Hale	Effective Speaking
SCH	241	3	3	MWF	11	PE	205	Tew	Effective Speaking
SCH	301		3	TThS	10	PE	208	Constans	Adv Public Speaking
SCH	303		3	MWF	11	PE	209	Constans	Argumntatn & Debatng
SCH	307		3	TThS	9	PE	205	Hale	Interpretatn of Lit
SCH	312		3	MWF	10	PE	209	Constans	Courtroom Speaking
SCH	315		3	MWF	9	PE	209	Hale	Applied Phonetics
SCH	404		3	To	Arrange			Tew	Dramatic Production
SCH	417		3	To	Arrange			Hale	Correctn Spch Defects
SCH	504		3	To	Arrange			Tew & Constans	Probs Dramtc Prodctn
SCH	515		3	MWF	9	PE	209	Hale	Applied Phonectis
SCH	517		3	To	Arrange	PE	209	Hale	Correctn Spch Defects
Speech and Hearing Clinic			0	MTThF	2-4	PE	209	Hale	

VETERINARY SCIENCE VY

VY	301		3	TTh T	10 1-3	AG AG	209 209	Shealy	Vetny Anat Physiol
VY	401		2	TTh	9	AG	209	Shealy	Livestock Diseases
VY	543		*	To	Arrange			Emmel	Probs Anml Pathlgy

* Variable credit

HOUR	MONDAY		TUESDAY		WEDNESDAY		THURSDAY		FRIDAY		SATURDAY	
	Course & Section	Room Number	Course & Section	Room Number	Course & Section	Room Number	Course & Section	Room Number	Course & Section	Room Number	Course & Section	Room Number
8:00												
9:00												
10:00												
11:00												
12:00												
1:00												
2:00												
3:00												
4:00												
5:00												

Engineering Education

at the

University of Florida

THE UNIVERSITY RECORD

of the

UNIVERSITY OF FLORIDA

Vol. XL, Series 1 No. 10, Extra No. 1 October 15, 1945

Published monthly by the University of Florida, Gainesville, Florida
Entered in the post office in Gainesville, Florida, as second-class matter, under Act of Congress, August 24, 1912
Office of Publication, Gainesville, Florida

The Record comprises:

The Report of the President to the Board of Control, the announcements of special courses of instruction, and reports of the University Officers.

These bulletins will be sent gratuitously to all persons who apply for them. The applicant should specifically state which bulletin or what information is desired. Address—

THE REGISTRAR, University of Florida
Gainesville, Florida

John James Tigert, President, University of Florida

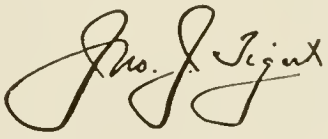
FOREWORD

The high standing that the College of Engineering of the University of Florida holds among engineering educators throughout the country is a source of gratification to me.

There are several reasons why the College of Engineering has achieved that standing. All five of its instructional departments are accredited by the official engineering accrediting agencies. Its curricula in the several branches of engineering are modern, broad, and well balanced. Its laboratories are well equipped with the machines and instruments needed for instructional and research work in engineering. Its graduates have made excellent records in industry, in private practice and as graduate students in other institutions of higher learning. It has played an important part in the war effort by accelerating its regular program, offering special educational work for Army and Navy personnel, training civilians in many parts of the State for important war jobs, and through the confidential war research projects in the Florida Engineering and Industrial Experiment Station.

The College is now participating in the rehabilitation of veterans through its regular program of engineering education, and, in cooperation with the University College, in the training of technical aides.

I feel confident that the people of Florida will welcome the opportunity afforded by this bulletin to become better acquainted with the facilities available for engineering education and research on the campus of their own State University.



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Edwin S. Frash, B.S., in M.E., M.E., Assistant Professor of Mechanical Engineering
James T. Leggett, B.S.M.E., M.S., Assistant Professor of Mechanical Engineering

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*On leave of absence.

Engineering Education at the University of Florida

There has never been a time in the history of our country when the need for engineers was so great and the supply so meager as during the time of World War II. On both the home and the fighting fronts the American Engineer played a vital part in bringing peace to a war-torn world. He has been busy in the field, factories, and in laboratories designing and building camp sites, landing fields, aeroplanes, ships, guns, tanks, shells, rockets, radar equipment and the hundreds of other military items so essential in modern warfare.

The many problems of the post-war period will present another great challenge to the engineer. That the College of Engineering at the University of Florida has been ever mindful of the trend of events is evident from its past record of achievement, its present high standing in the fields of engineering education and research, and its progressive plans for the future.

Engineering Building. Mechanical and Industrial Engineering Departments and Administrative Offices of the College.

FUTURE PROSPECTS FOR ENGINEERS

There always has been a greater demand for graduates than the College of Engineering of the University of Florida has been able to fill. Even during the dark days of the depression, beginning about 1930, many of our seniors received employment offers well in advance of graduation day. During the war, Selective Service reduced the enrollment of male college students to such a great extent that engineering colleges throughout the country are graduating only a small percentage of their normal numbers. Several years must pass before engineering college graduates will return to pre-war figures. It is quite evident, therefore, that the present serious shortage of young engineering graduates will continue for some time. Industry will need engineers in converting from the manufacture of implements of war to the production of refrigerators, radios, washing machines, automobiles, and the many other civilian commodities that have been off the market for many years. Engineers will also be in demand for the production of new types of civilian goods based on synthetic rubber, aluminum and magnesium, plastics, nylon, et cetera. Housing projects, road and bridge construction, public utilities and river and harbor improvements are examples

Benton Hall. Chemical and Electrical Engineering Departments.

of many other types of engineering work that will become very active in the post war years.

HIGH SCHOOL PREPARATION FOR ENGINEERING STUDY

Mathematics, physics, chemistry, drawing and English are the foundation stones on which the professional courses in engineering are based. High school students who do well in those subjects, therefore, may consider making engineering their career. Students expecting to study engineering in college should secure as much high school training as possible in mathematics and the physical sciences. If you enjoy those subjects and are interested in how things are made and what makes them work, it is an indication that you may have aptitude for engineering.

THE UNIVERSITY OF FLORIDA SYSTEM OF ENGINEERING EDUCATION

The College of Engineering of the University of Florida works on the premise that the well educated professional engineer should not only master the technical aspects of his profession, but that he should also have a working knowledge of the social and economic factors which govern civilization. This College did some of the pioneering work in the liberalization of engineering education which is now regarded as essential throughout the nation. It was, therefore, not necessary for us to modify our curricula to bring them in line with the recommendations of the Engineers' Council for Professional Development and the Society for the Promotion of Engineering Education that engineers be given such scope of knowledge as to enable them to take their proper place in the modern world and make satisfactory contacts with men in other professions. At the University of Florida, with its Colleges of Arts and Sciences, Business Administration, Agriculture, Education, Law and its Schools of Pharmacy, Architecture and Forestry, opportunities are afforded for the engineering student to become acquainted with, and to discuss problems with students specializing in many other important fields, including psychology, sociology, history, liberal arts, English, foreign languages, pre-medicine, pre-dentistry, pharmacy, law, agriculture, education, botany, biology, and philosophy. This is frequently not the case in highly specialized technical schools.

The education of the engineering student consists of two phases—a basic (elementary engineering) phase, taken in the University College,

and an advanced (professional) phase, taken after he is registered in the College of Engineering. Those students of good ability who have no high school deficiencies in mathematics and the physical sciences

View Showing Portions of Benton Hall, Engineering Building, and College of Engineering Shops.

Hydraulic Laboratory. Civil Engineering Department.

John F. Seagle Building. Some of the Electronics work of the College is done is this building.

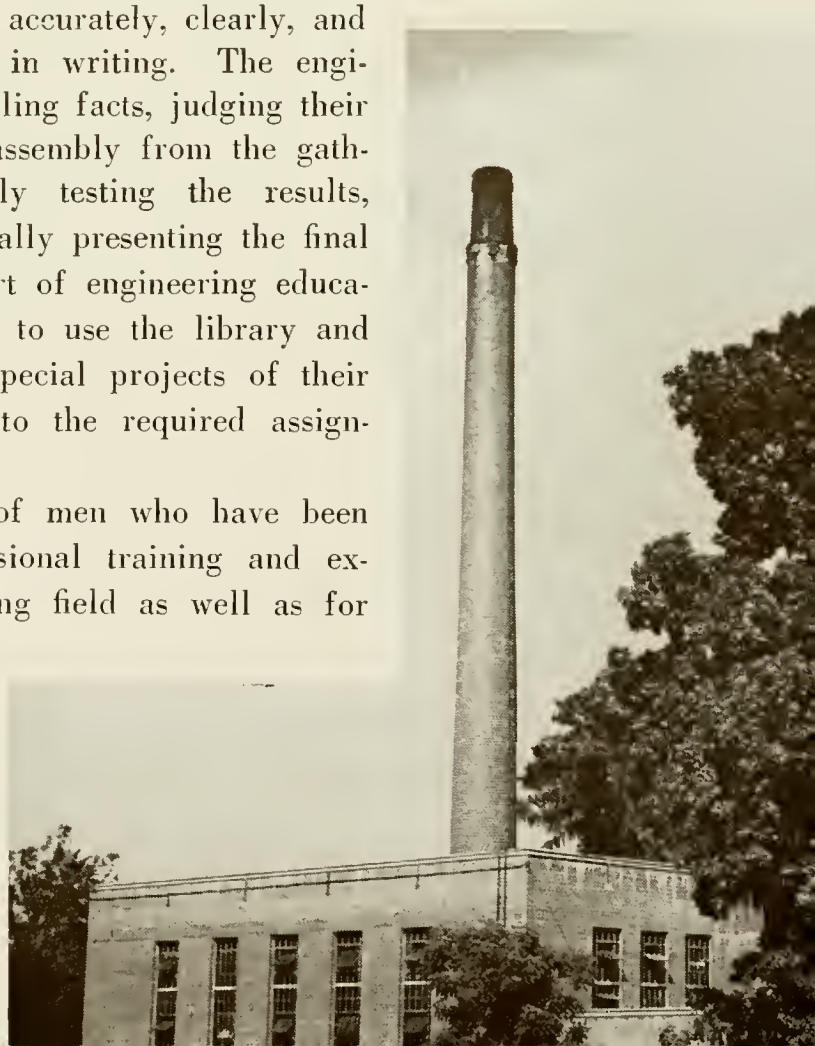
may expect to graduate in four years. Other students must expect to spend additional time on their studies by extending the program by one or two additional terms, either in the regular or summer sessions. Properly prepared students, during their freshman year, will take basic mathematics, engineering drawing, descriptive geometry and chemistry. During the sophomore year the student will take physics, differential and integral calculus and some pre-professional subjects such as surveying, industrial stoichiometry, analytical chemistry, mechanism and kine-

Radio Station WRUF.

matics. During the first two years he will take three of the University College courses, C-1, "American Institutions"; C-3, "Freshman English"; and C-5, "The Humanities." Upon the satisfactory completion of this work, the student is eligible for an Associate of Arts Certificate. The mere presentation of such a certificate will not secure entrance for him into the College of Engineering—the student's record in the University College must show reasonable proficiency in mathematics, physics, chemistry, and the pre-requisite professional subjects before he is accepted.

The work in the junior and senior years constitutes the advanced (professional) phase. The courses required depend on the field of engineering that the student selects. Bachelor degrees are given in chemical, civil, electrical, industrial and mechanical engineering. Students may secure specialization in aeronautics; heating, ventilation and air conditioning; radio and electronics; or public health. Every effort is made to encourage the student to develop initiative, ingenuity, sound judgment, leadership and the ability to express himself accurately, clearly, and convincingly—orally and in writing. The engineering method of assembling facts, judging their values, building a final assembly from the gathered material, continually testing the results, using judgment and logically presenting the final results is an essential part of engineering education. Students are urged to use the library and laboratory facilities on special projects of their own choice in addition to the required assignments.

The faculty consists of men who have been selected for their professional training and experience in the engineering field as well as for



The University Heating Plant.

their teaching ability. Many members of the faculty serve as consultants for industries in the state and are active in national and state professional societies. Classes are kept small to permit close personal contact between the student and his instructors.

The cooperative plan enables students selecting this plan to secure practical experience in Florida industries and to earn at least part of the money needed to defray their college expenses.

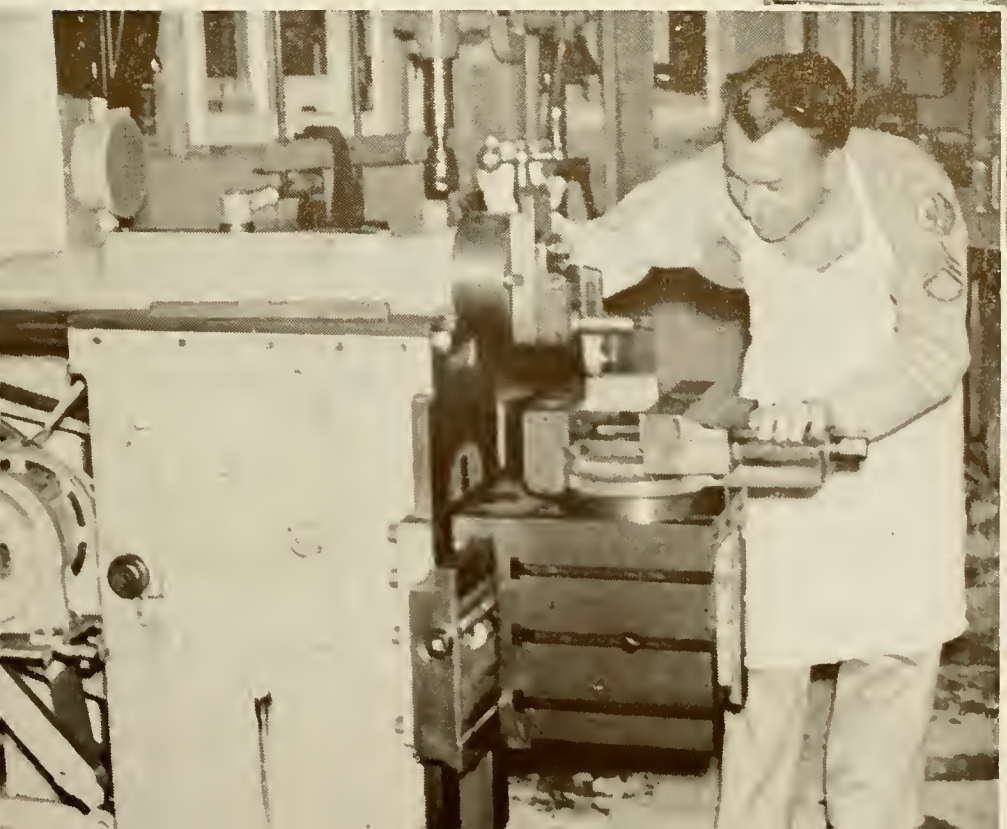
The Florida Engineering and Industrial Experiment Station offers additional opportunities for the student to become acquainted with problems pertaining to Florida's resources and industries and to take an active part in solving them.

POSTGRADUATE STUDY IN ENGINEERING

For many years the College has been offering graduate work leading to the degree of Master of Science in Engineering. Students whose scholastic averages are considerably above average are urged to continue their studies for this degree. The College is now contemplating the expansion of its graduate program with the cooperation of the staff of the Florida Engineering and Industrial Experiment Station.

Financial assistance in the form of graduate scholarships, assistantships and fellowships can be secured by worthy students pursing graduate work. Some of these are outright grants while others require that the student spend part of

Engineering Drawing. Required of all Freshmen expecting to study Engineering.



Running a Shaper in the Metal Working Shop.

his time on duties in the department of his specialization. These duties may consist of helping with the laboratory instruction, grading papers, or serving as assistants to research engineers.

SPECIAL COURSES FOR VETERANS

The College of Engineering is endeavoring to serve returning veterans in three educational catagories:

(1) Through its regular degree granting program, the graduate is prepared for entrance into the professional fields of Chemical, Civil, Electrical, Industrial, and Mechanical Engineering.

(2) Through special curricula two year terminal courses of a technical nature are offered to veterans having the equivalent of a high school education, but who for various reasons are unable to enroll in the regular four-year curricula. These special curricula should enable persons to qualify as technical aides associated with engineering work in many fields. The program is prepared so that a foundation will be given in the subject matter required to qualify as a technical aide and that the veteran will be in a position to read technical literature and proceed with self education in an engineering direction.

Upon the completion of two years of work a student is eligible to receive a certificate of Associate of Applied Sciences.

(3) Vocational courses of less than college grade are contemplated through the University's Institute. Laboratories, as well as staff members, of the College of Engineering are used to give special courses so that those veterans who may not be able to qualify for college level work can secure vocational training in technical fields.

WHAT HAS THE COLLEGE DONE IN THE PAST?

The College of Engineering has been rendering increasingly great and more diversified service to the State and the Nation ever since the first degrees in engineering were granted by the University of Florida in 1911. Our graduates have been prominently identified with practically all of the engineering and industrial developments in Florida. Highway and

The VT fuse on a 500 lb. Aerial Bomb. Bomb is 5 feet long.

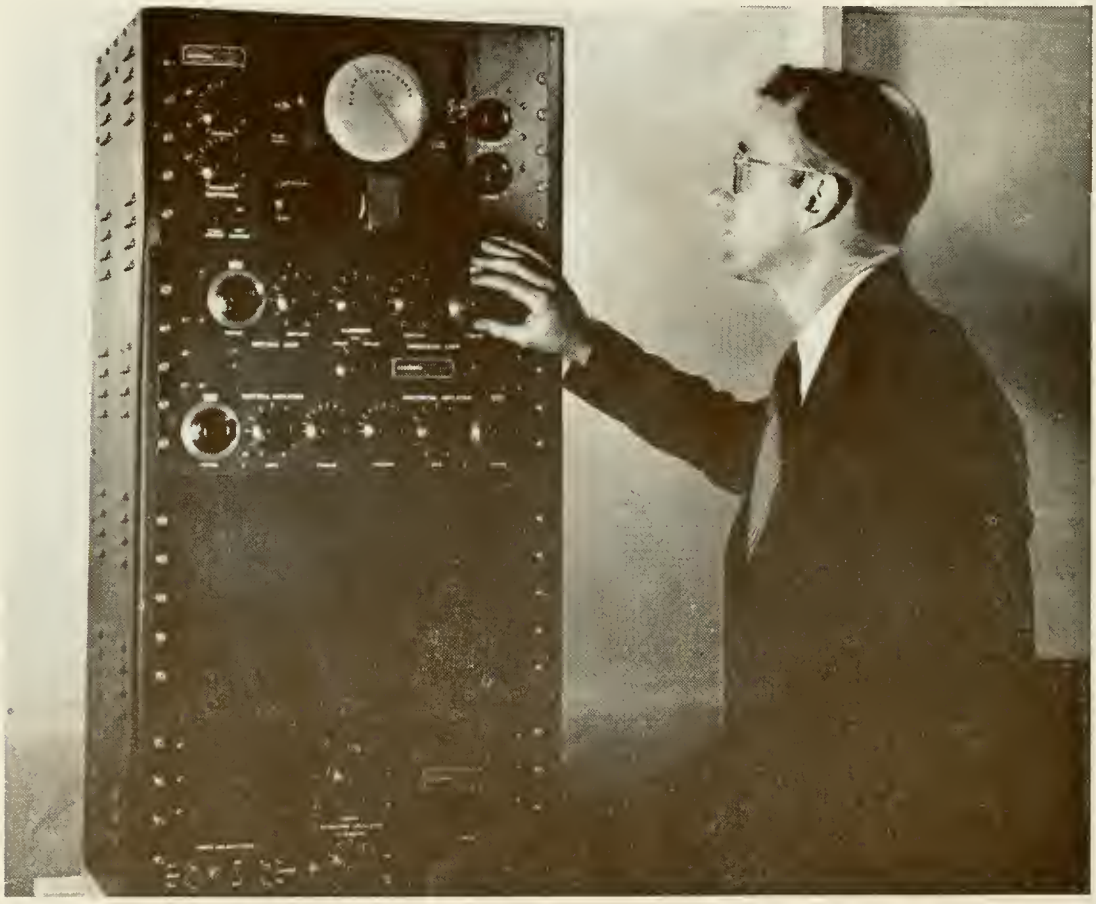
The small electronic or VT fuse as developed by the University of Florida College of Engineering in collaboration with scientists of the U. S. Bureau of Standards.

bridge construction, railroads, air transportation, power generation and distribution, communication systems, public health, pulp and paper, wood distillation and shipbuilding are typical examples. In other states

of the Union and in many foreign lands, University of Florida engineering graduates hold responsible positions in design, construction, operation and management of a large variety of industries including petroleum, plastics, rubber, metals and alloys, radio, electronics, television, and electrical and mechanical instruments and machinery.

WARTIME ACTIVITIES OF THE COLLEGE

Even before war was declared the College of Engineering had been called upon to serve our Armed Forces. Pilot training was given as early as 1939 under the Civilian Pilot Training Program. At about the same time special training classes of both an elementary and an advanced



Testing a direction finding unit developed by the University of Florida for the Signal Corps for locating storms in various theaters of war.

nature in electronics, communications, and radar were given to civilians in the employ of the War Department, as well as to classes of enlisted men and commissioned officers of both the Army and Navy.

During the war most of our engineering graduates were either commissioned officers in the military services or were holding key positions

in essential industries. The College of Engineering accelerated its program by operating on a twelve months basis so that students could complete their education and qualify for commissions, or for employment in war industries, in the shortest period of time. The University has published a booklet, obtainable from the Registrar, entitled "Wartime Services of the University of Florida" in which are described several important educational activities in which the College of Engineering took an active part. Included in the list are the Civilian Pilot Training Program, (CPT) the Civil Aeronautics Administration War Training Service (CAA) and the Engineering, Science and Management War Training Program (ESMWT), which were administered by the College, the Army Specialized Training Program (ASTP) of which the advanced phase was limited to professional work in chemical, civil, electrical and mechanical engineering, and research projects of the Florida Engineering and Industrial Experiment Station.

Under the CPT program basic flight training and ground school instruction was given to qualified civilians, while the CAA program was designed to train men in the Army and Navy Air Corps Enlisted Reserve Corps to become glider pilots, liaison pilots and flight instructors. A total of 470 men completed their training courses under the CPT-CAA programs and all of them were in active military service shortly after this country entered the war.

The ESMWT program was designed to train men and women in civilian life, and commissioned officers, for specific technical positions in essential industries and in the armed forces. The program was sponsored and financed by the U. S. Office of Education and the courses offered were of college or post-graduate level. Members of the faculty prepared the outlines and supervised the instruction, while almost all of the actual teaching was done by specialists in industry. Approximately 10,000 Florida citizens, including 2,500 women, enrolled in these courses, which were given in nearly all of the larger cities and industrial areas of the State. Some idea of the scope of the program can be gained from the following partial list of the subjects offered: Engineering drawing, radio communications, ultra-high frequency techniques (for Army and Navy officers), ship building, industrial safety, foremanship training, plant management, aircraft engineering and surveying.

The ASTP was an accelerated program for training selected enlisted personnel in the basic and advanced phases of engineering for technical assignments in the army services. The courses given were similar to those required in the regular engineering college curricula, but the work

was considerably streamlined so the trainees could be returned to active duty as quickly as possible.

Research work done in the Florida Engineering and Industrial Experiment Station during the war was of outstanding importance in the Nation's war effort. This was due in large part to the several secret federal projects sponsored and financed by the Federal Government. During the fiscal year ending July 1, 1945, approximately $250,000 was utilized for such research. The nature of some of these war projects cannot be revealed even at this time. The University has been highly commended for its work in developing and constructing direction finding equipment and the small electronic or VT mortar fuze for the Army.

The first State funds for the operation of the Station were released in 1943 and since that time research work, having as its objective the industrial development of Florida, has moved forward. Research at the Station had been in progress for many years by members of the teaching staff of the college. The equipment already available and the national recognition achieved by the faculty, particularly in electronics, played an important part in securing for the University of Florida the federal contracts for war research projects. These factors were also considered by various industrial organizations which have been financing research projects at the Station since 1941.

The income from most of Florida's natural resources has always been relatively low because they have been used in the State in the raw condition or shipped out of the State to be manufactured into finished products of much higher value. One of the main objectives of the Station is to demonstrate how our resources can be made to yield a greater income and create new employment opportunities for Floridians. Details concerning the operation of the Station and its projects can be secured from the Office of the Director, Florida Engineering and Industrial Experiment Station, University of Florida, Gainesville, Florida.

FLORIDA INDUSTRIES' COOPERATIVE PLAN

On March 16, 1936, the College of Engineering was authorized to offer a cooperative engineering course under the sponsorship of the college and seven of Florida's leading industries. The course started on August 1, 1936, when the first teams were selected by the industries.

Cooperative students follow one of the standard curricula of the college. They may begin cooperative employment while in the University College provided their scholastic record is sufficiently high.

After assignment to an industry, a student alternates with his partner each college session. There are two men on each team so that one man is in the University while his partner is in industry. Some of the features of the cooperative plan are:

(a) Each student is an employee of an industry which thoroughly trains him in its field. This employment enables the student to be self-supporting while going to college.

(b) As a student advances academically, the responsibilities of his job are usually increased and he "grows up" in the industry.

(c) At the time he is graduated from the University the student has an excellent background in the practice of his profession.

(d) Students are not obligated, in general, to continue employment with a particular industry after graduation.

ORGANIZATION OF THE COLLEGE

The College is made up of five instructional departments and the Florida Engineering and Industrial Experiment Station. The curricula of all five of the instructional departments are accredited by the Engineers' Council for Professional Development and the University of the State of New York which are the official accrediting agencies for engineering colleges of the Nation.

The College is presided over by the Dean, who is also Director of the Experiment Station. Each instructional department is under the supervision of a department head.

The instruction departments are:

Chemical Engineering

Civil Engineering (including the Public Health option)

Electrical Engineering (including Power and Communication options)

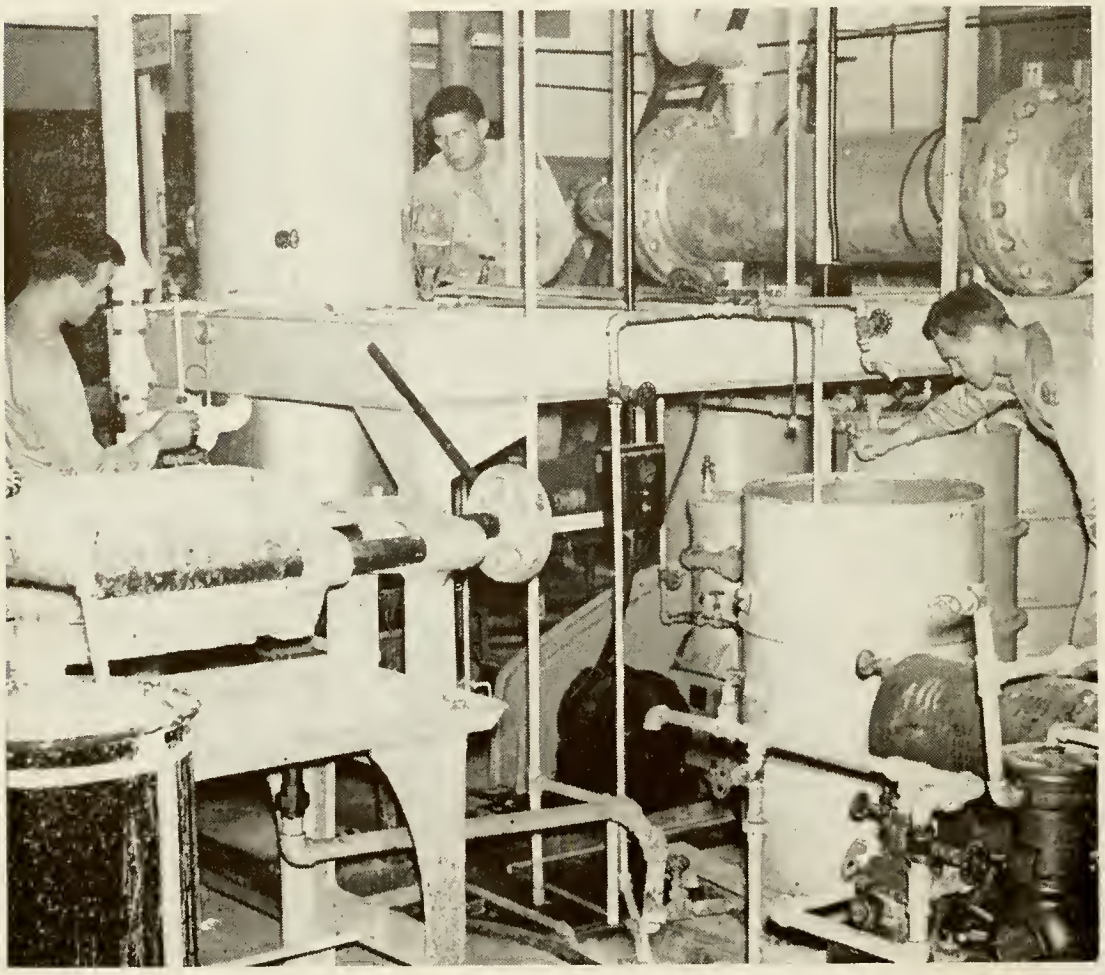
Industrial Engineering

Mechanical Engineering (including the Aeronautical Engineering option).

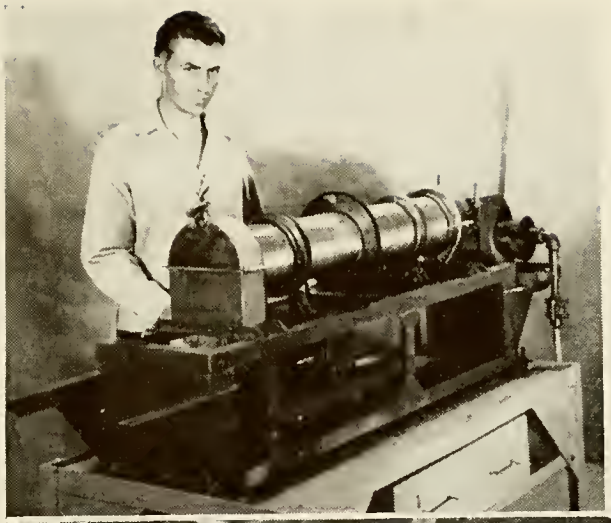
Courses of Study

CHEMICAL ENGINEERING

The production of synthetic rubber, the cracking of petroleum products to make high-test gasoline, the manufacture of the several types of rayons and plastics from cotton, wood and coal, and the recovery of magnesium from sea water are typical, well-known, modern industries whose development required the application of chemical engineering knowledge. Industries such as these generally originate from chemical research work carried out on a very small scale in a laboratory. The design, construction and operation of plants for the commercial production of such materials is the field of the chemical engineer.



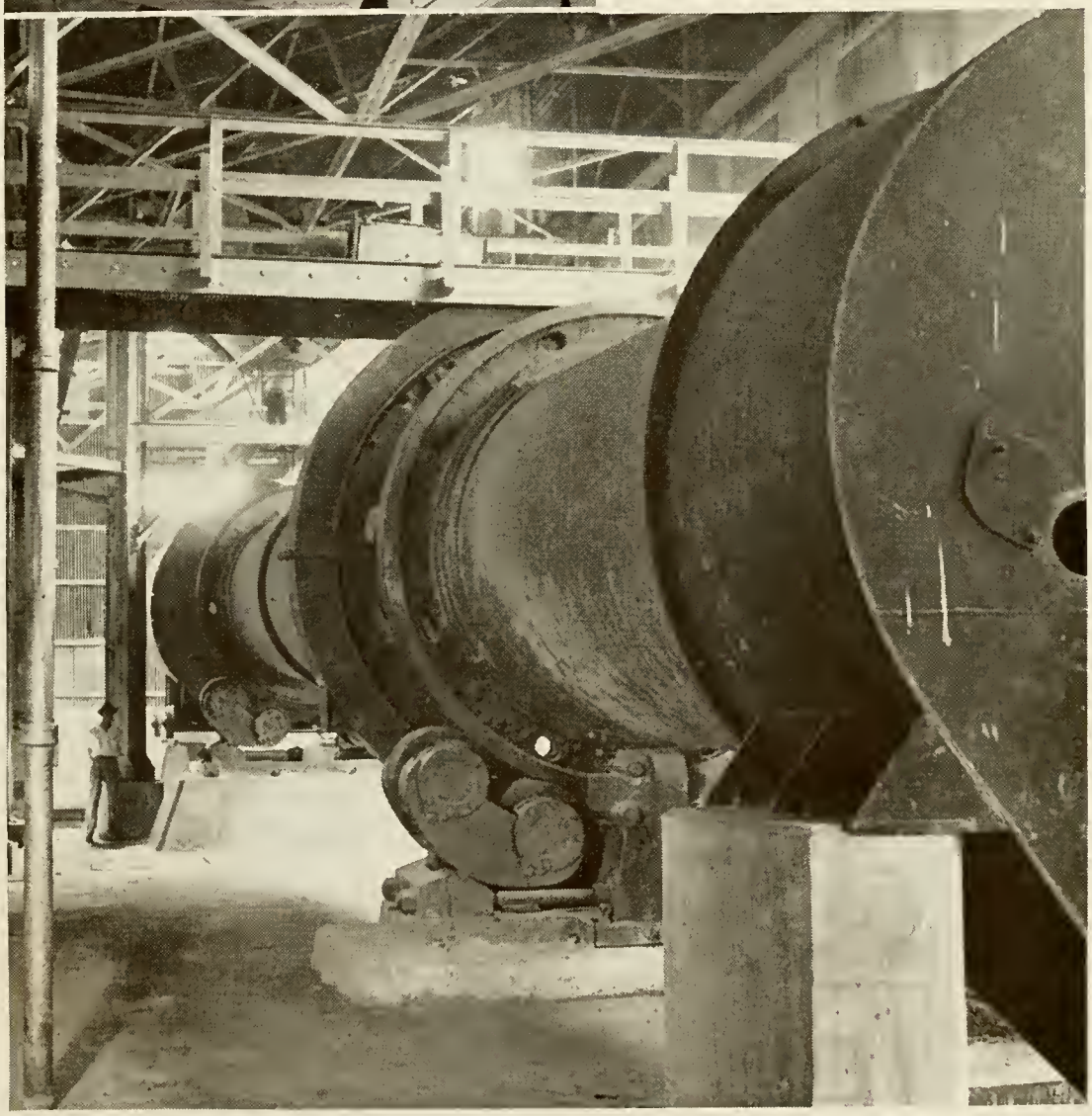
A Section of the Laboratory Showing a Vacuum Evaporator (center), a Plate and Frame Filter Press (left), and a Portion of a Rotary, Continuous, Vacuum Filter (lower right). These are Models of Machines Used in the Paper Industry, Sugar Houses, and Many Other Chemical Industries.



(Upper) A Laboratory Size Rotary, Continuous Drier for Experimental Purposes.

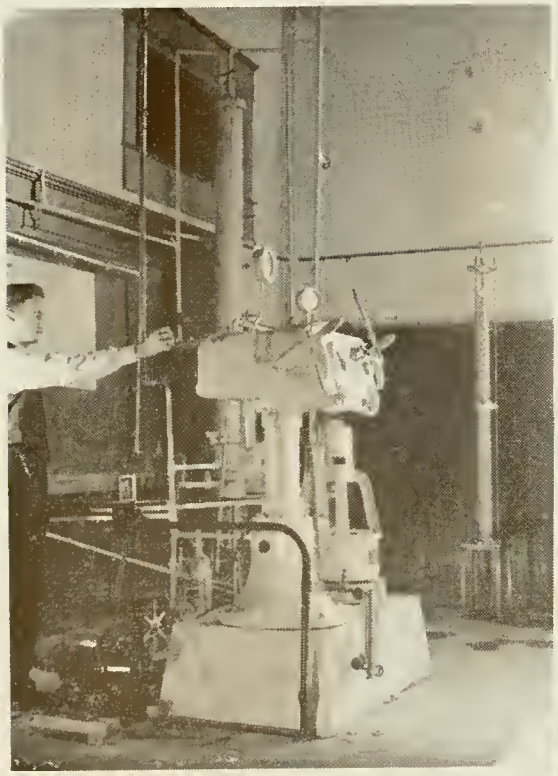
(Lower) A Commercial Drier of the Same General Type for Drying Phosphate Rock.

(Courtesy of International Minerals and Chemical Co.)

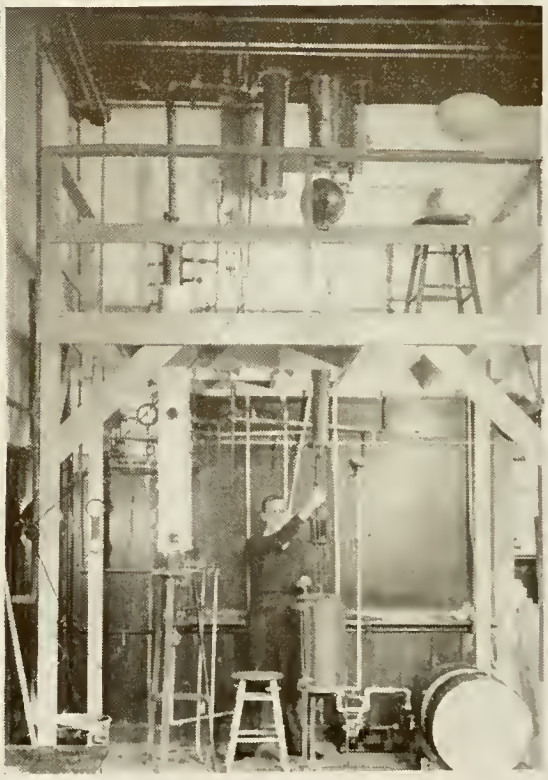


CURRICULUM

Modern chemical engineering education stresses the "unit operations" and "unit processes" common to all chemical plants. Unit operations include crushing and grinding, filtration, evaporation, distillation, fluid flow and heat transfer, while hydrogenation, sulfonation, nitration and halogenation are typical unit processes. Furthermore, a chemical engineer must have a good background in chemistry, physics and mathematics. His education should also include chemical plant design, chemical engineering economics, thermodynamics and fundamentals of electrical and mechanical engineering. Details concerning the current curriculum will be found in the University Bulletin of the Upper Division.



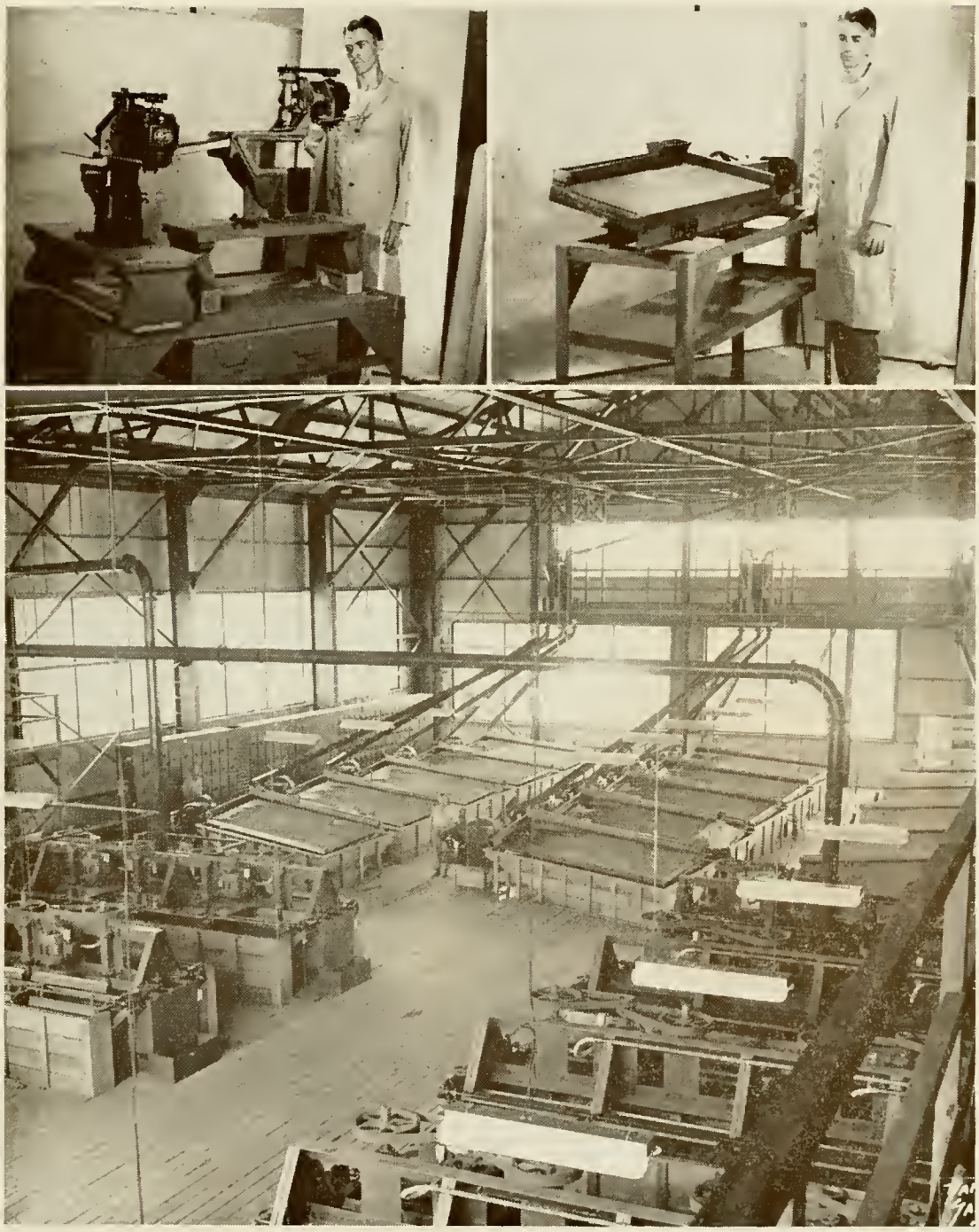
Turning Steam Into the Jacket of a Vacuum Drier. A 12" Centrifuge Stands Next to the Drier, and a Lucite Gas Absorption Tower is in the Background.



A 15 Plate Bubble-Cap Column for the Study of Fractional Distillation.

AFTER GRADUATION

About twenty per cent of our chemical engineering graduates take one or more years of graduate work. Since students with advanced degrees are much less numerous than those with the Bachelor's degree, and



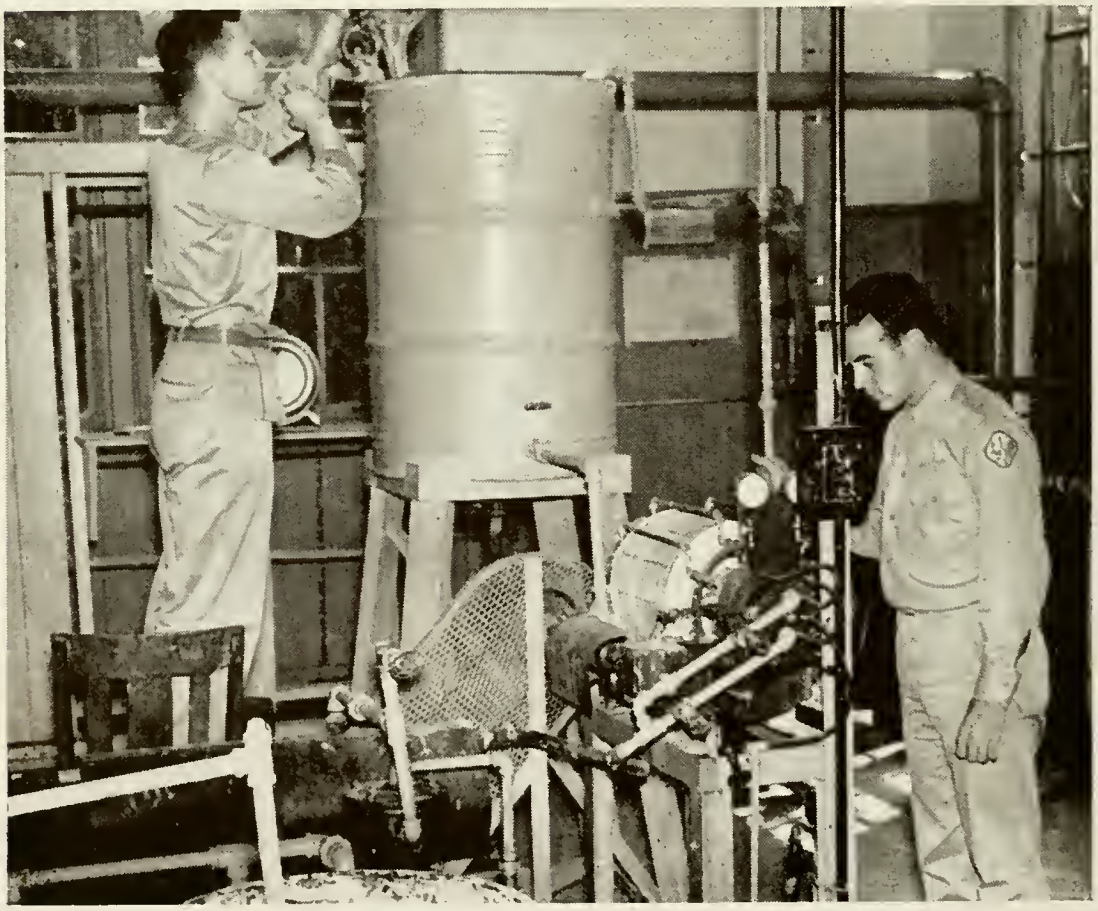
(Upper) Laboratory Size Flotation Machines and a Wilfley Table for the Study of Mineral Concentration.

(Lower) Full Size Machines of the Same Type Being Used to Separate Phosphate Rock from Sand and Clay. (Courtesy of International Minerals and Chemical Company.)

since they are more highly trained, they generally secure better positions than those with the Bachelor's degree. All chemical engineering students who are able to maintain high scholastic records, should consider the advisability of doing graduate work.

Graduates who go into the chemical industries may start in one of several types of work. Typical starting jobs are:

1) Orientation: In some companies the graduate is familiarized with the various parts of the plant by working in the several departments under the direction of more mature employees. After this orientation period is completed, he generally selects the department in which he wishes to work.
2) Plant operation: The graduate supervises the operation of plant machinery.
3) Pilot plant work: The first step involved in developing process from the laboratory scale to the full plant scale.
4) Laboratory work: Work such as routine physical and chemical tests, or research assistant.



Making a Test Run on a Continuous, Rotary, Vacuum Filter.

5) Statistical work: Work involving chemical engineering economics.

Naturally the work of the beginner will generally be of a rather elementary nature, and it will be supervised by someone with more experience. More responsible positions will come after the young engineer has clearly demonstrated his ability to handle them. It is not uncommon for chemical engineers with several years of experience to advance to executive positions. Opportunities for such advancement are perhaps better in the smaller industries than in the larger ones.

LABORATORY FACILITIES

The laboratories of the Department of Chemical Engineering are very well equipped with the same types of small scale, commercial type machines that are used by industry for pilot plant work. Many of them are especially designed to facilitate the collection of the data needed to test their performance and to verify the theory presented in the class room.

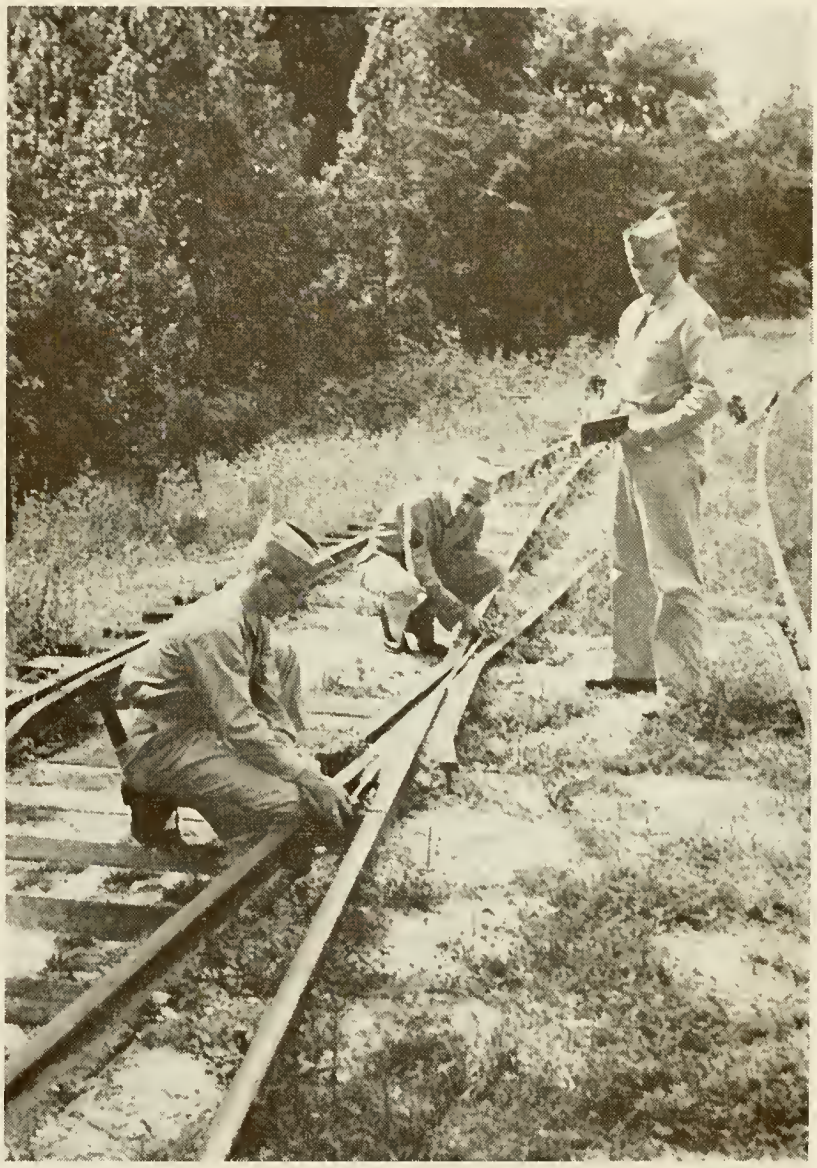
Major items include: Heat exchangers, condensers; filtering machines; centrifuges, tray, rotary and vacuum driers; columns for gas absorption, solvent extraction and distillation; atmospheric and vacuum evaporators; crushing and grinding machines; equipment for the wet and dry classification of solids and the concentration of ores; a thickener; mixers and agitators; reaction vessels; and electric, gas and oil fired furnaces.

Auxiliary equipment includes pumps, motors, jacketed and unjacketed tanks, equipment for analyzing gases and testing fuels and a variety of instruments for measuring fluid flow, temperature, humidity, hydrogen ion concentration, and other process variables. Special equipment is often assembled for research projects.

CIVIL ENGINEERING

Surveying is a Civil Engineering Department Prerequisite.

Civil Engineering is concerned with the application of scientific and practical skills to the preliminary investigation, design, construction and maintenance of structures and works required to maintain and advance our modern civilization. Such structures include buildings, bridges, dams, retaining walls and fixed structures of all kinds, hydraulic and sanitary works for water supply and sewage disposal, facilities for transportation by land, sea and air, including highways, railways, port facilities, canals and air bases.



Making Measurements of a Railroad Frog.

The trained civil engineer may become a specialist in any of a number of fields. These fields include geological, geodetic and aerial surveying, all phases of structural design, city planning, highway and railway engineering, construction and maintenance, river and harbor improvement, canal and irrigation development, water power, sanitary engineering and public health engineering. Many graduates are engaged in research or in technical teaching, some are contractors and others become executives in engineering management or administration. The civil engineering training may lead to divergent fields of practice, each pertaining to some phase of the profession.

CURRICULUM

During the first two years at the University of Florida, the civil engineering student includes with his general studies, courses in mathematics and drawing, surveying and engineering mechanics or analytical chemistry to prepare him for entrance into the more specialized phases of his education. Before registering for the second year the student will elect either the general option or the public health engineering option. The specific courses offered in these two options are given in the University Bulletin of the Upper Division.

Testing the Compressive Strength of a Beam with the 400,000 lb. Testing Machine.

The general option includes such courses as structural design, highway engineering, hydraulics, sanitary engineering, higher surveying, specifications, engineering relations and industrial safety, materials, and elements of electrical engineering. A reasonable amount of time is allotted for specialization in a branch of civil engineering and for non-technical course work.

LABORATORIES

Much of the work is carried on in the laboratories. The Civil Engineering Department maintains laboratories equipped for work in surveying, hydraulics, sanitary engineering, materials testing and hydrology.

The Surveying Laboratory equipment includes: repeating theodolite; precise levels; base-line measurement apparatus; plane tables; transits; levels; precision pantagraph; current meters; and smaller pieces of equipment necessary for field and drawing room work in elementary and higher surveying.

The Materials Testing Laboratory contains a 400,000 pounds capacity high-column testing machine equipped for both tension and compression tests; a 125,000 pound universal hydraulic testing machine; a 50,000 pound low-column machine; torsion, impact, hardness and other apparatus for the usual physical and chemical tests on brick, wood, steel, concrete, cement, sand, tars, asphalt and oils.

Advanced courses and equipment are available for graduate work and research in several branches of civil engineering.

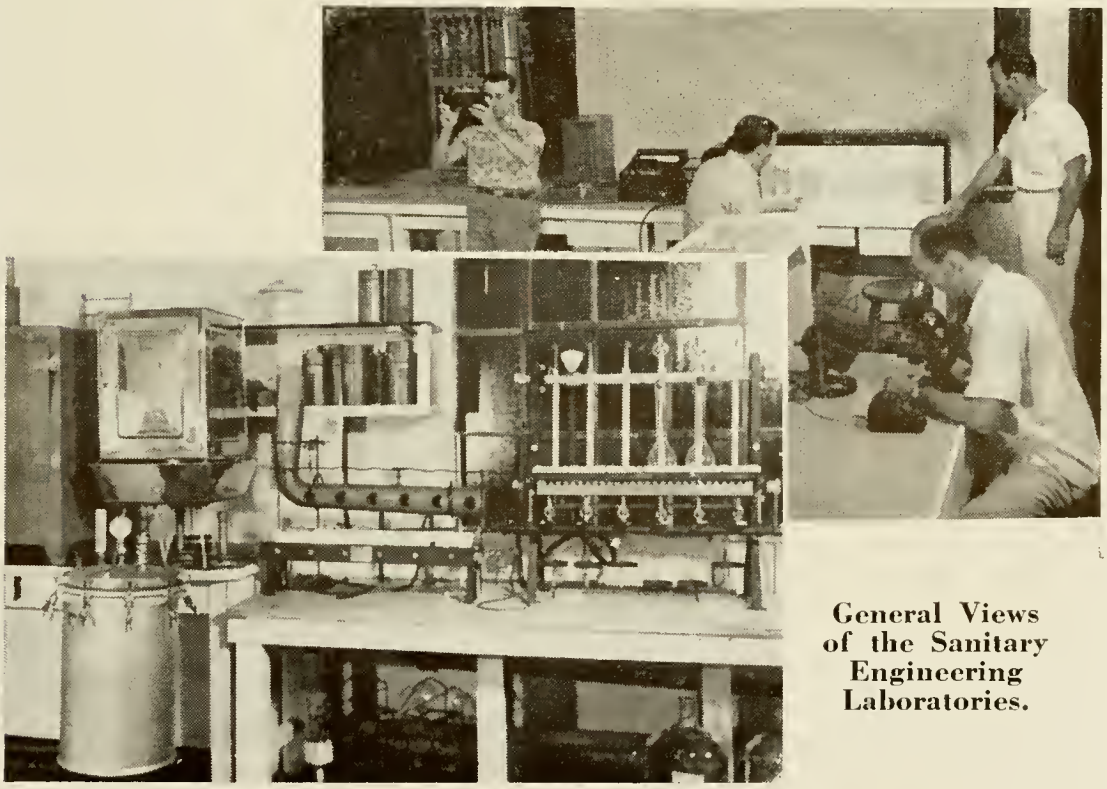
From Classes in Structures Such as this Come Our Designers and Builders of Tomorrow.

(Upper) Measuring the Rate of Water Flow Over a Weir.

(Lower) A Corner of the Hydraulic Laboratory. Determining the Operating Characteristics of a Centrifugal Pump.

PUBLIC HEALTH ENGINEERING OPTION

The public health engineer is concerned primarily with the control of environment to promote good health. He does this by designing, constructing, inspecting, and operating water and sewerage systems, water purification and sewage disposal plants, and garbage-refuse collection and disposal plants. Further, a public health engineer is adequately prepared to determine workable solutions to problems dealing with swimming pools, camp sanitation, control of epidemics, food and milk supervision, insect-borne diseases, air conditioning, industrial hygiene and stream pollution. To solve such problems, a knowledge of chemistry, biology and engineering is required. Thus, by means of his engineering, bio-chemical and microbiological education, the public health engineer is prepared to control environmental conditions in a manner that protects and promotes good health.



General Views of the Sanitary Engineering Laboratories.

CURRICULUM

The civil engineering curriculum permits the under-graduate to select the "Public Health Engineering Option" in his second year. This curriculum includes courses in analytical chemistry, organic chemistry, parasitology, entomology, general bacteriology, pathogenic bacteriology, bio-statistics, and public health administration.

Other civil engineering courses are included to give the student a good foundation in engineering. Details of the curriculum are given in the University Bulletin of the Upper Division.

A Class in Water Testing.

Preparation of Culture Media.

LABORATORIES

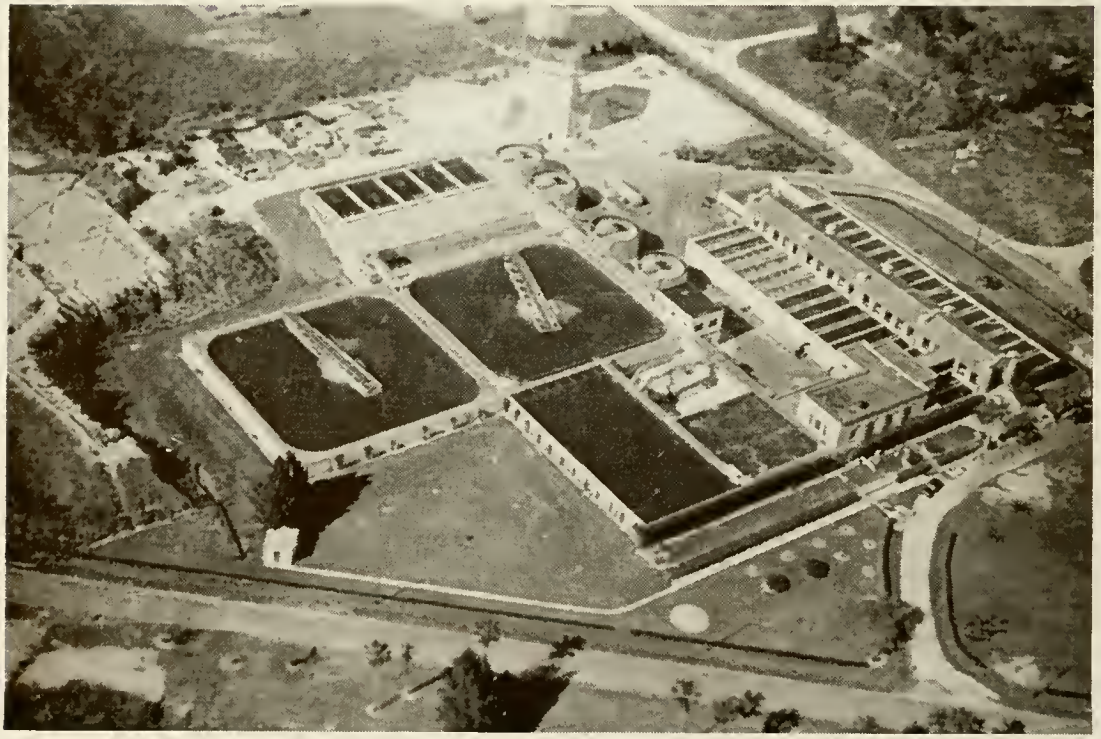
The sanitary laboratories are unusually well equipped for experimental work in this field. They occupy three rooms in the Hydraulics Laboratory Building and cover over 1,500 square feet of floor space. The equipment is modern in every respect and is available to all undergraduate and graduate students who are interested in the analysis of water and sewage. There is also a large amount of equipment available for experimental work and several projects of an experimental nature are now in progress.

A Research Project in Public Health Engineering.

The first floor and the mezzanine of the Hydraulic Laboratory are utilized by the fluid mechanics laboratory. This equipment, which is extensive, is available to the sanitary engineer to help him better understand the principles of flow of water in open channels and pipes, to aid in studying pumps, and to carry on experimental work.

The University sewage disposal plant and the Gainesville water works are available for study and practical observations.

Examination of Bacteria Under the Microscope.

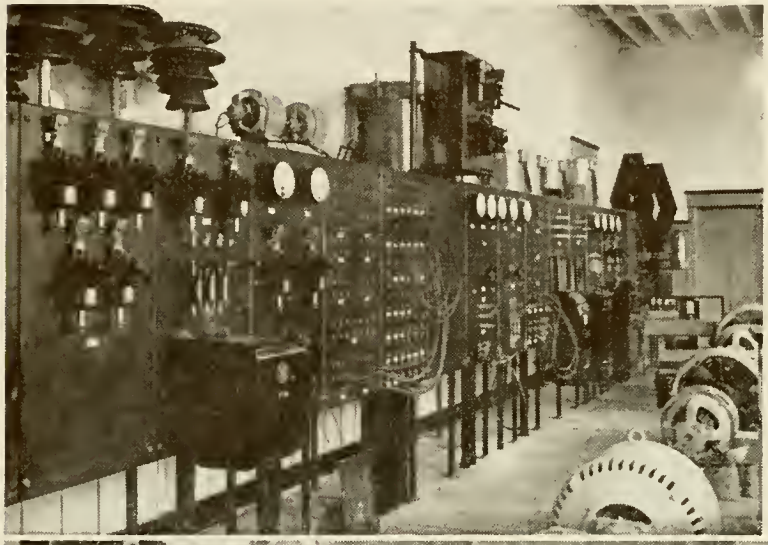


Principles Studied in the Public Health Option May be Applied in the Design, Construction and Operation of Water Purification Plants Such as this One in Miami, Which has a Capacity of 60,000,000 Gallons per Day.

ELECTRICAL ENGINEERING

Power Field

Electrical Engineering may be divided into several general fields, two of which are of particular importance in modern life—the "power" field, and the "communications" field. The power field includes such subdivisions as generation, distribution, and transmission of electrical



(Upper) Switchboard in the Dynamo Laboratory.

(Lower) Testing a Motor.

energy; also the design, installation, testing and maintenance of electrical wiring systems, electrical rotating machinery, and the application of electricity to all of the manifold uses which affect our daily life.

The growth of the electrical industry has been rapid and continuous. In the 20 years from 1918 to 1938 the use of electric energy in the United States for domestic purposes increased about eight times. Electrical manufacturing is one of the leading industries in the United States. More electrical engineers are employed in manufacturing than in any other field.

Starting a Motor Generator Set.

The products created by electrical manufacturers range in size and importance from the generator that will deliver electric power for the needs of a whole community to the plug that connects a household tool using its share of the power; from the Diesel-electric locomotive to the cigar lighter on the automobile dashboard. The electrical engineer's conection with manufacturing is primarily in the design and production of electrical apparatus for varied uses.

The work done by power companies in generating electric power, transmitting it for long or short distances, and distributing it for industrial and home use, communication, and transportation, is called

Night-time View of Generating Station. Florida Power Corporation, St. Petersburg.

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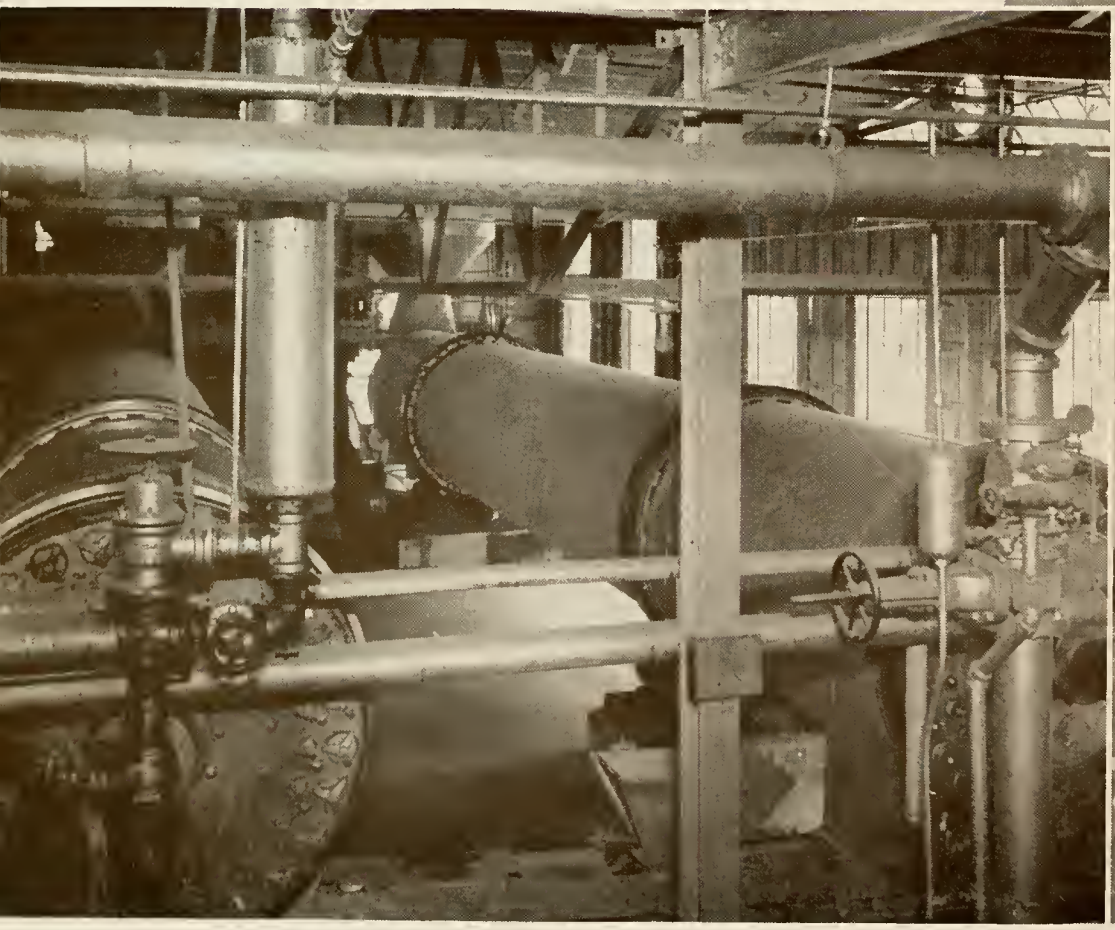


Part of Citrus By-Product Plant. Dr. P. Phillips Co., Orlando.

S

Phosphate Products Plant. U. S. Phosphorics Products Division Tennessee Corporation, Tampa. (Courtesy of Fairchild Aerial Surveys, Inc.)

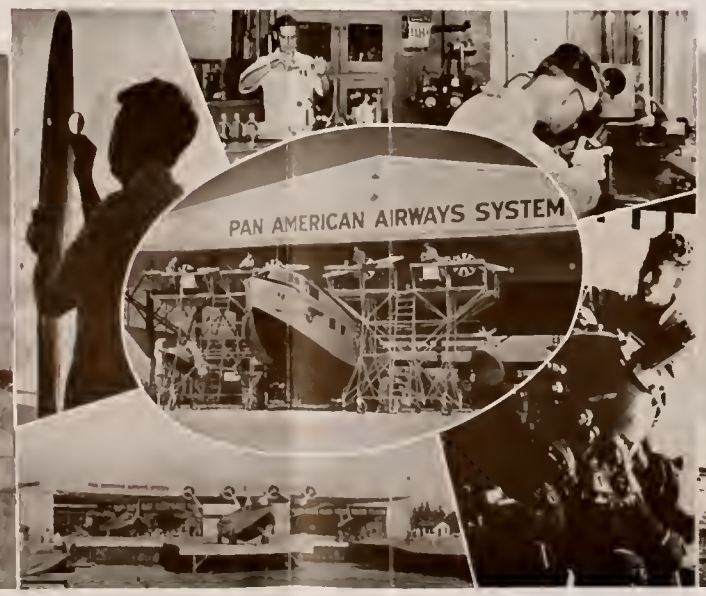
Naval Stores and Wood Products Plant. Newport Industries, Inc., Pensacola.

Portland Cement Manufacturing Plant, Florida Portland Cement Co., Tampa.

Grinding Plant, Dry Storage Mill for Phosphate Rock. International Minerals and Chemical Co., Mulberry

Typical Florida Industries Employing Graduates of

The College of Engineering



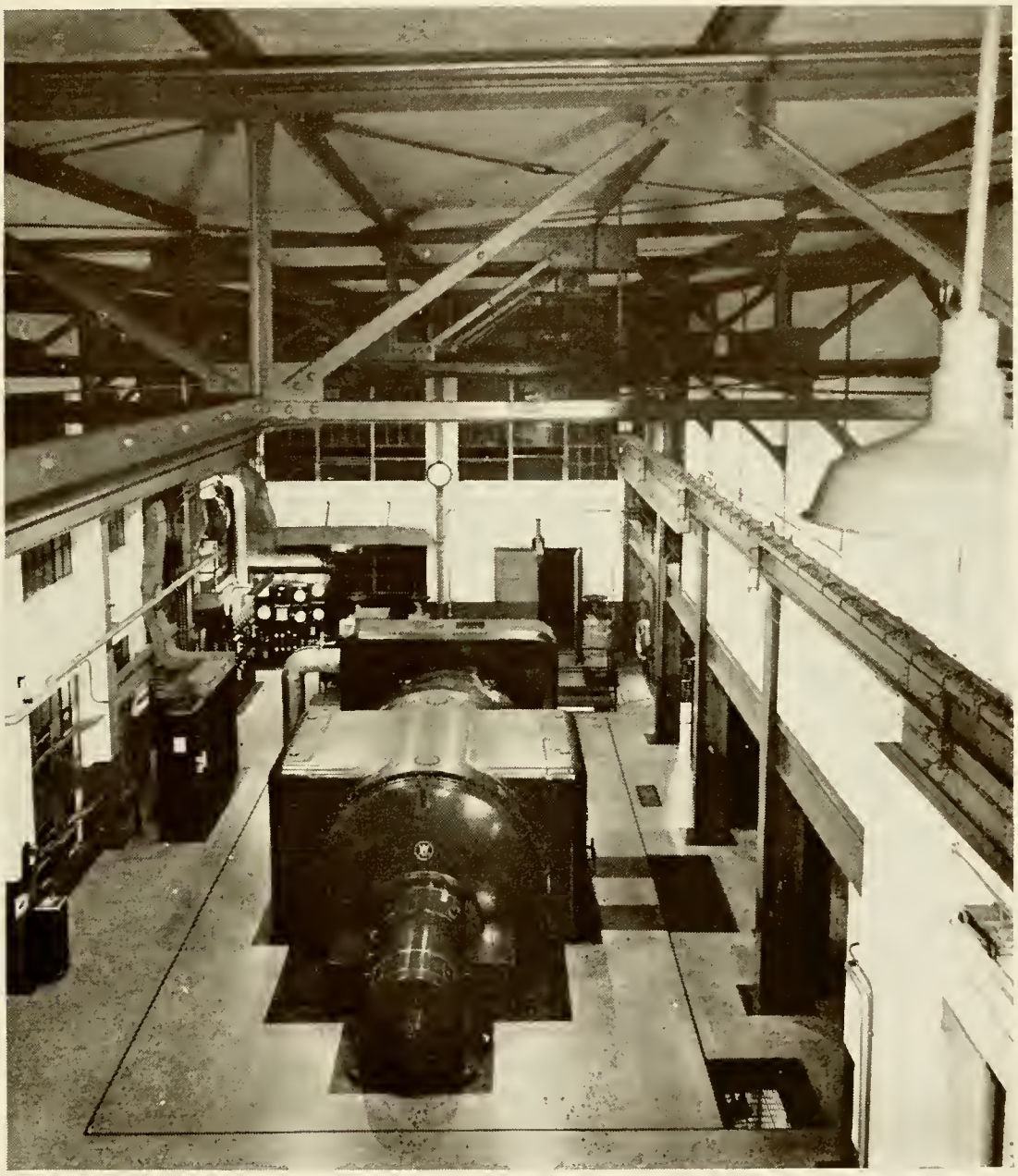
Sugarcane. U. S. Sugar Corp., Clewiston.

(Upper) Sulfite Pulp Plant. Rayonier, Inc., Fernandina.
(Lower) Pan American Airways, Miami.

Steam Electric Station. Florida Power and Light Company, Miami.

One of Florida's Several Kraft Pulp and Paper Mills. International P Co., Southern Kraft Division, Panama City.

operation. The services of many electrical engineers are required for these activities in both privately owned and government-owned systems. The utility systems must continually be enlarged and improved to keep ahead of the ever-increasing needs and uses for electric power. Utility engineers also are constantly improving the quality of equipment and service and making it possible to supply electric power at lower cost to the consumer. Since the great aim of power-system operation is to give efficient and uninterrupted service, no matter what troubles arise,



Experimental Work on Laboratory Machines Prepares Our Students for Testing and Inspecting Commercial Machines Such as this 30,000 KW High Pressure Turbine Direct-Connected to a 13,800 Volt Hydrogen Cooled Generator. (Courtesy of Florida Power and Light Co.)

the utility engineer must anticipate trouble and prevent it by the invention and installation of protective equipment. When emergencies do occur—such as may be incidental to floods, storms, or conflagrations—heroic measures, demanding courage and resourcefulness from the engineer, may be required to restore service.

CURRICULUM

The electrical engineering under-graduate may choose between a "communications" or "power" option. The University Bulletin of the Upper Division gives a list of the required courses for both these options.

LABORATORIES

The Dynamo Laboratory, which is an electrical machinery laboratory, contains the master power supplies with their associated panelboards and numerous types and sizes of DC and AC motors,, generators and transformers. Many of these machines are especially constructed to demonstrate the principles and to permit tests to obtain their characteristics and thus determine their specific applications. The laboratory also contains a large amount of associated equipment, such as dynamometers, a sine wave generator set, voltage regulators, load boxes, etc., and a large group of ammeters, voltmeters, wattmeters, instrument transformers of various ranges in order to permit the necessary measurements on this broad group of equipment.

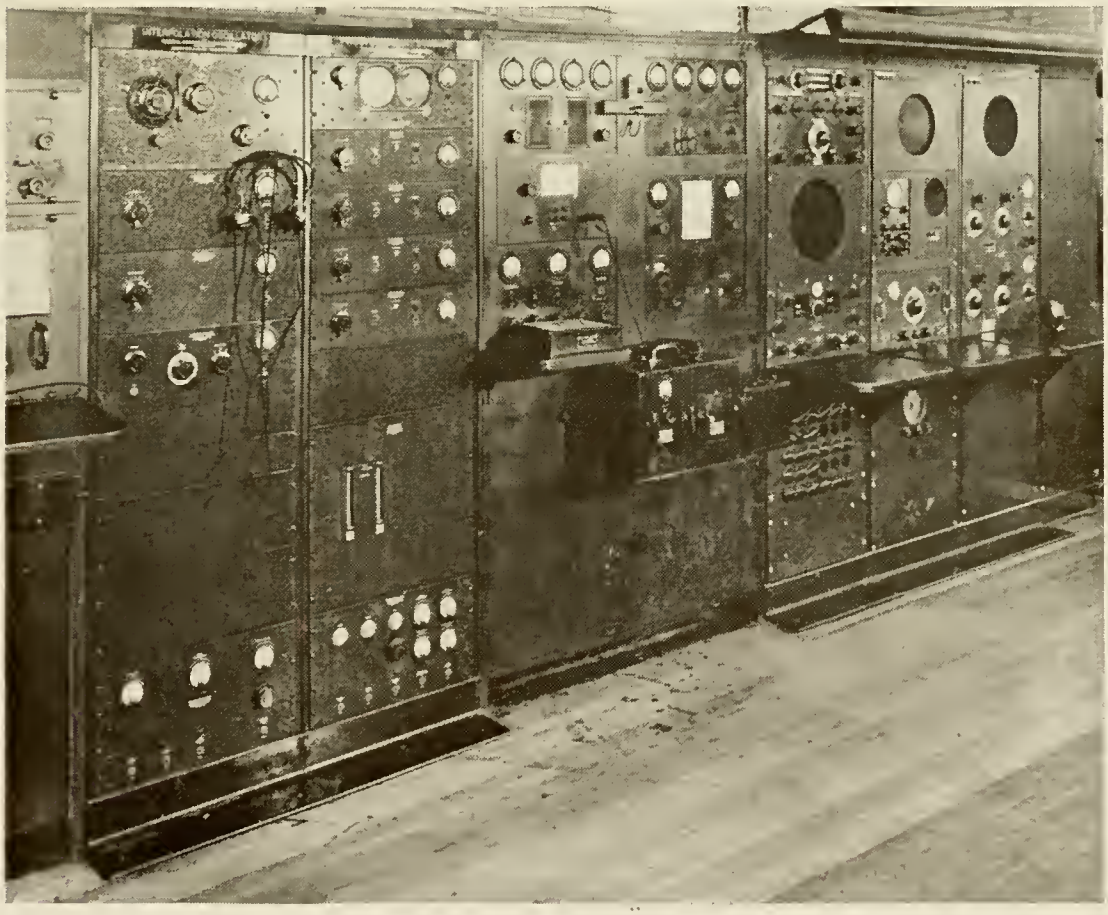
In order to maintain the instruments in proper calibration, a Precision Laboratory is maintained that contains precision instruments and devices for standardization work.

Closely associated with this power equipment is a group of heavy-duty electronics equipment which, although used in the power field, is generally classed with electronics and the communication section.

ELECTRICAL ENGINEERING

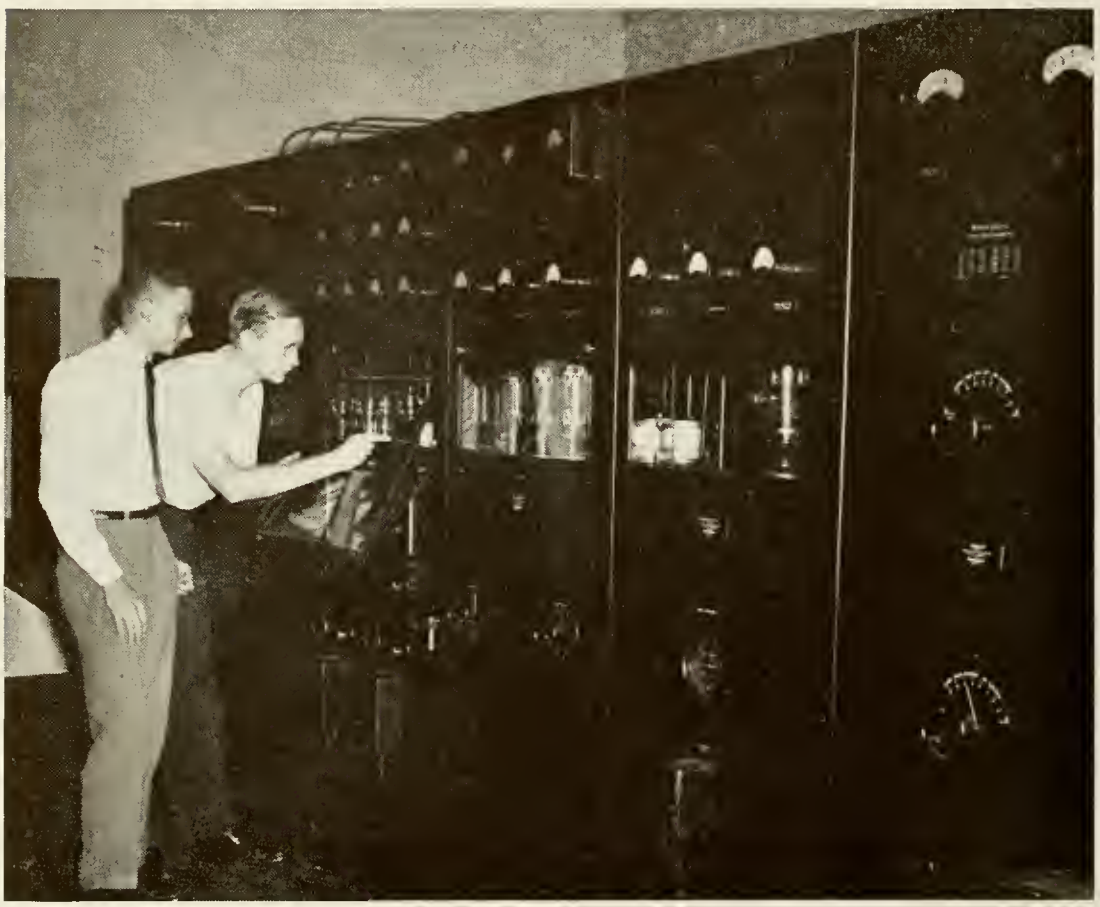
Communications (Radio and Electronics) Option

One of the first general commercial uses of electric power was in the field of communications—the telegraph. Where signal fires, tom-toms, and couriers once were the principal means of getting messages from one place to another, and over limited distances at best, the telegraph, the telephone, and the radio have brought the peoples of the entire world within the range of direct and instantaneous intercommunication. The development of the vacuum tube enormously expanded the range of these electrical channels of communication, and correspondingly increased the need for electrical engineers and technicians. The vacuum tube also has found its way into industry, opening to electrical engineers the whole new field of electronics, wherein these devices are finding important applications in automatic controls, and in measuring,



Instruction in Communications Prepares Our Students for Testing and Operating Monitoring Equipment Such as this. (Courtesy of Federal Communications Commission.)

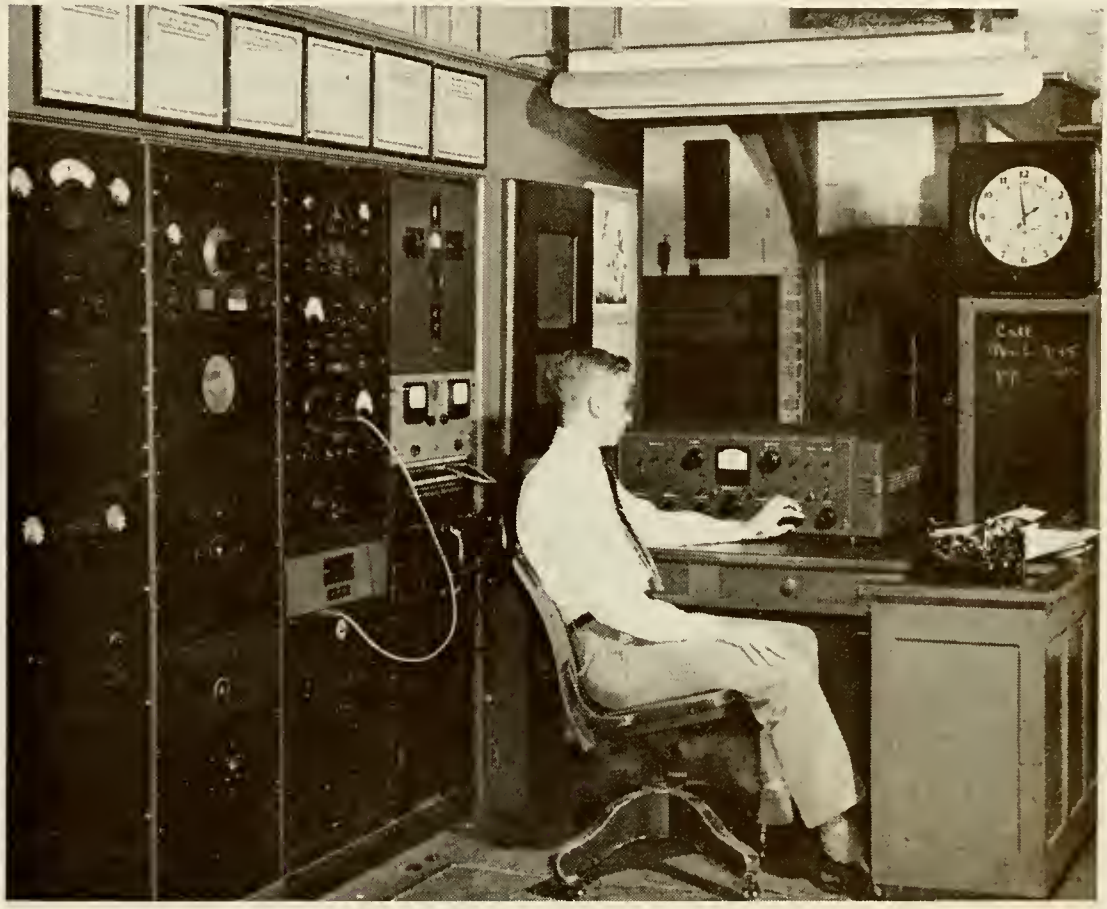
switching, and signaling equipment. Everyone is familiar with the extremely rapid growth of the science of electronics. The war, which introduced radar to most people, has increased the uses for electronics tremendously. It can truthfully be said that the industrial use of electron tubes is just beginning, for there are many things that electronics can do which can be done in no other way. For example, by using electronics to control the time of application of electric spot welding current, one can make welds in stainless steel and aluminum that could not be made consistently by any other method.



5,000 Watt Transmitter. Radio Station WRUF.

The fields of radio, radar, and those ultra-high frequency industrial applications which include induction and dielectric-heating, have been much publicized since the beginning of the war. It is safe to say that the many uses of these phases of electrical engineering will continue to grow materially after the war. Blind flying, altimeters (which show the actual height of the airplane above terrain), flowing tin plate on metal, electronic "sewing machines" and the like are rapidly creating whole new fields for the Electrical Engineer.

In another field tremendous strides are also being made. This is the field of "FM" (frequency modulation in radio), and television. "FM" allows radio broadcasting to be free from "static", and everyone is familiar with the advantages in home entertainment which television will afford. Any Electrical Engineer who has specialized in communications will be adequately prepared to take his place in these rapidly growing fields.



Control Desk. Radio Station WRUF.

CURRICULUM

Junior students in electrical engineering at the University of Florida begin to specialize in either—"power" or "communications" (radio and electronics) by selecting one of these options. The former includes specialized study in generation, distribution, control, electric motors, etc. The latter includes wire and radio communications, electronics (with emphasis on industrial electronics), television, and the like. Further specialization in the selected option is exercised in the senior year. Detailed information on courses is given in the University Bulletin of the Upper Division.

LABORATORIES

The Electronics Laboratories are equipped with the most modern devices in this field. Practically every type of modern electronics equipment is represented. In these laboratories will be found a special panel board incorporating cable terminals, line fault equipment, transmission measuring equipment, audio and high frequency oscillators, repeaters, filters, networks, bridges and a large number of special devices including cathode ray oscilloscopes, field strength measuring equipment, automatic signal recorder, miscellaneous receiving equipment, static recorders, radio goniometers, ultra high frequency signal generators, electronic switches, precision wave meters, radio frequency bridges, square wave generators, Klystron tubes, varied types of analyzers, numerous short wave transmitters, special directional type receivers, artificial line bays, a complete television unit including "live" pickup, transmitters, receivers, precision crystal-control, standards of frequency and a large variety of thyratrons, ignitrons and kathetrons.

Testing a Raido Receiving Set.

Radio Station WRUF, a 5,000-watt Western Electric transmitter, operating at 850 kilocycles, cooperates with the laboratory in courses on radio station operation. These courses are open to students who have attained sufficient knowledge to benefit by this work. Station W4XAD, a special experimental radio-telephone station, is licensed at 600 watts for frequencies of 2398, 4756, 6425, 8655, 12,862.5 and 17,310 kilocycles, and is used for experimental work in the field of short wave radio communications.

Measuring Field Strength of Radio Waves.

There is a special industrial electronics laboratory, housing electronically-controlled spot welders, electronic induction, and dielectric-heating equipment, complete industrial x-ray units, a "precipitron", a large ignitron rectifier unit, electronic timers, photo-electric units, thyratron motor speed control, and electronic generator voltage regulators and synchronizers.

Operating an Experimental Television Set.

INDUSTRIAL ENGINEERING

Modern industry has many specialized problems in construction, operation and management which can best be solved by persons who understand not only the fundamentals of engineering, but also the principles of economics and human relations. Students in industrial engineering are given the broad education that is necessary to give them an understanding and an appreciation of the problems that are faced by industrial managers and executives.

CURRICULUM

The curriculum is designed to give the student a thorough education in engineering fundamentals including drawing, mechanics, strength of materials, thermodynamics, and principles of electrical engineering, as well as economic foundations, accounting, plant layout and design, human engineering, industrial safety, job analysis, and other required and elective courses of a professional nature. Details of the curriculum are given in the University Bulletin of the Upper Division.

LABORATORIES

Students registered in industrial engineering make use of the other laboratories of the College. The laboratories of the Industrial Engineering Department are used for motion and time study projects and for the demonstration and study of stress analysis through the use of polarized light.

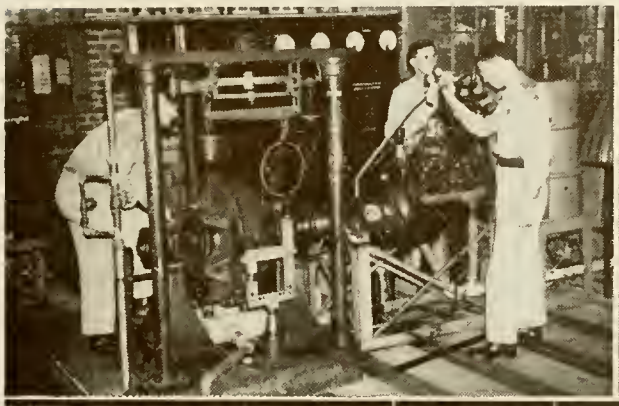
The equipment for motion study includes miscellaneous photographic equipment, timing equipment and projectors. For study of photoelectricity and stress concentrations, the laboratory has an 8″ polariscope with models, testing machine, screen and camera.

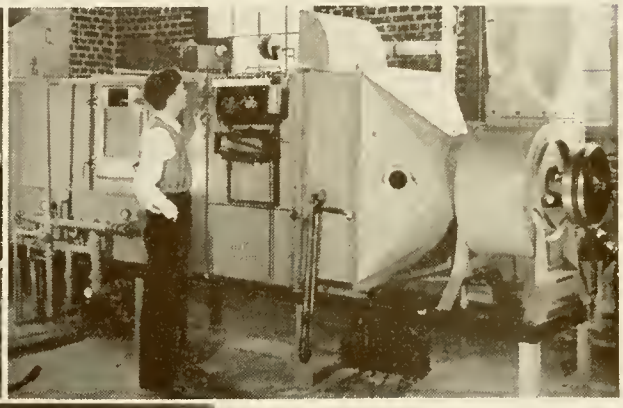
(Upper) Motion and Time Study. Film Analysis of a Micro-motion Project.

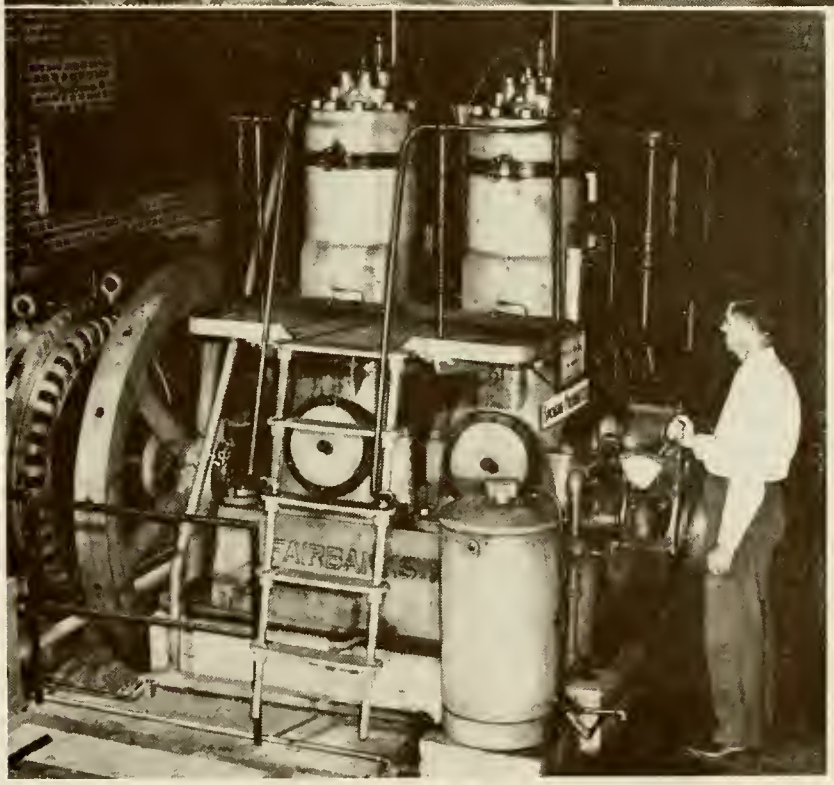
(Lower) A Stop Watch Study of a Drilling Operation.

MECHANICAL ENGINEERING

The development, design, manufacturing and utilization of machinery of all types constitute the principal fields of interest for mechanical engineers. Thus, it is seen that mechanical engineers are needed in practically all types of manufacturing plants and in many branches of industry and commerce. The three principal fields of professional practice taught to undergraduates in college are heat, power, hydraulic power, design. and manufacturing operations.







(Upper left) Making a Test Run on an Internal Combustion Engine.

(Upper right) Experimental Equipment for Studies in Air Conditioning.

(Lower) A Diesel Engine Connected to an A.C. Generator.

The heat power field is broad and includes the production and utilization of heat and power. The design, installation and operation of steam power plants for utilities, railroads, and ships are included in this field.

Internal combustion engines of all types are studied. This includes the automotive, airplane, diesel, tank, tractor, and marine types. Heating, air conditioning, ventilating and refrigeration for comfort, for processing of materials and foods and for the production of many industrial and commercial products are fields of study in mechanical engineering.

Hydraulic power machinery for the production of power in hydroelectric plants and the utilization of power by means of pumps of all types is an important field of mechanical engineering practice. Such equipment is needed in every water and sewage disposal plant of cities and factories. Large numbers of pumps are used in connection with the production and distribution of petroleum products such as gasoline, lubricating oil and fuel oil. Pumping operations play an important part in many other industries and in agriculture.

The field of design and manufacturing includes the production and application of machinery of all types. Machine tools are designed for building other machines. The mass production of cars, tanks, airplanes, typewriters, guns, washing machines, and many other familiar machines, are illustrations of the type of work done by mechanical engineers in this branch of practice.

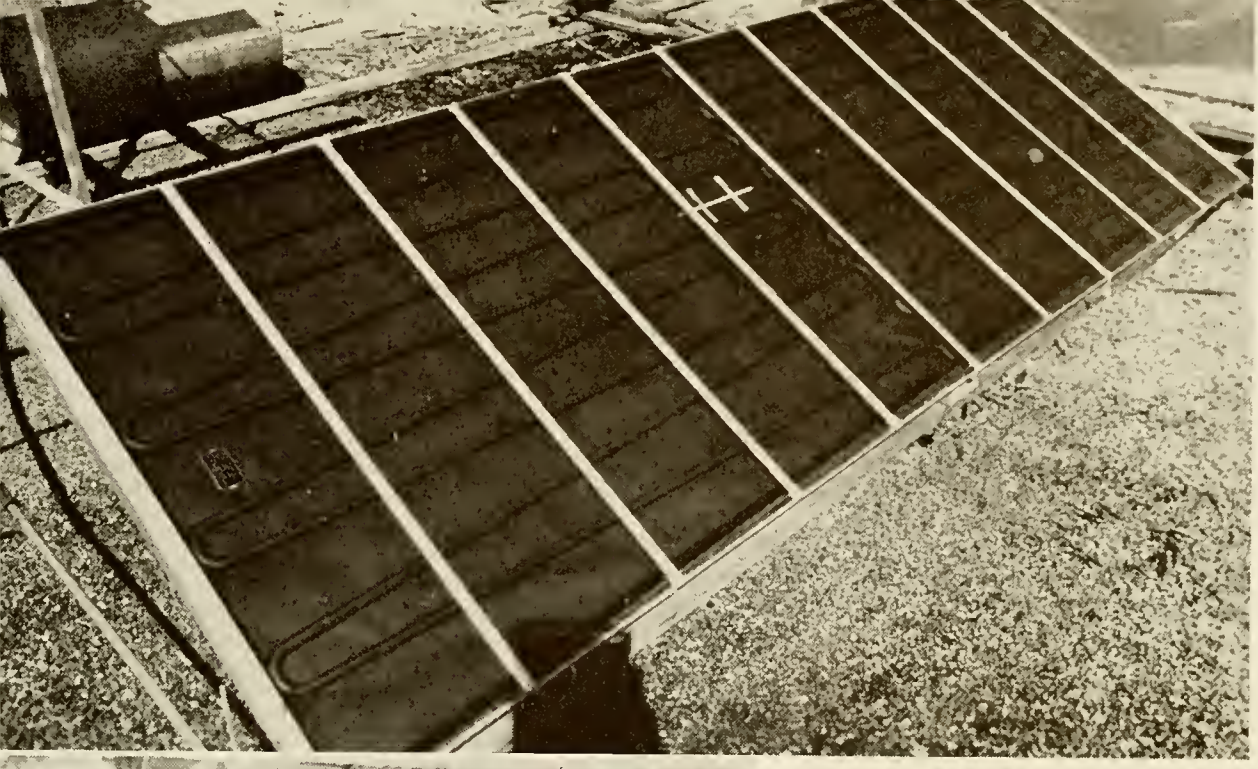
The occupations of mechanical engineers are similar to those of other professional engineers and may be classified as to the type of work which they do. Professional engineers are engaged in research, design, operation or production, management, sales, consultation, and technical teaching. Thus, it is seen that the field of employment is very broad and requires that a man receive a correspondingly broad education in college.

CURRICULUM

The mechanical engineering curriculum allows the undergraduate to specialize in his senior year in the fields of aeronautical engineering, heating, ventilating, refrigeration and air conditioning, internal combustion engines, design and manufacturing. The specific courses and their proper sequence is given in the University Bulletin of the Upper Division.

LABORATORIES

The laboratories of the Mechanical Engineering Department include facilities for drawing, design, production of machinery and equipment; and for the study of the performance of machinery and allied apparatus. Those laboratories contain actual equipment of types found in industry, and thus afford the student first hand knowledge and experience with the types of equipment studied in the classroom.



Equipment for Studying Solar Heating of Water.

Laboratories for studying the production of machinery include equipment for casting, forging, welding, machining, heat treating of metals, and various types of woodworking machines.

Interior View of Heating Plant. Boiler Tests and Steam Power Experiments Are Conducted Here.

Extensive equipment is available for the study of the strength and behavior of wood, cement, concrete, metals, and other materials used in engineering structures and machines. Coupled with this is the Metallography Laboratory, which is arranged for the study of internal crystal structure of these materials.

Facilities are provided for studying the performance and other characteristics of steam engines, turbines, condensers, boilers, automobile engines, airplane engines, diesel engines, refrigeration equipment, air conditioning apparatus, airplanes, and auxiliary equipment used with these machines. The laboratory is well equipped for testing fuels, flue gas and lubricants.

Basic engineering instruments are available for use in connection with special studies and research in any of the foregoing fields.

Preparing for a Test Run on an Airplane Engine.

THE AERONAUTICAL ENGINEERING OPTION

Aeronautical Engineering embraces the activities of engineers in research, design, manufacture, maintenance, and operation of aircraft. Graduates are prepared for positions in research organizations, airplane manufacturing plants, and with airline engineering departments.

An Aeronautical Engineering option is offered in the Mechanical Engineering Department and consists of specialization in the aeronautical field during the senior year. Courses are offered in aeronautics, aerodynamics, airplane design, aerodynamics laboratory and aircraft instruments. All other basic Mechanical Engineering courses are included. The degree given is the "Bachelor of Mechanical Engineering" (aeronautical option).

Airplane Model in the Wind Tunnel.

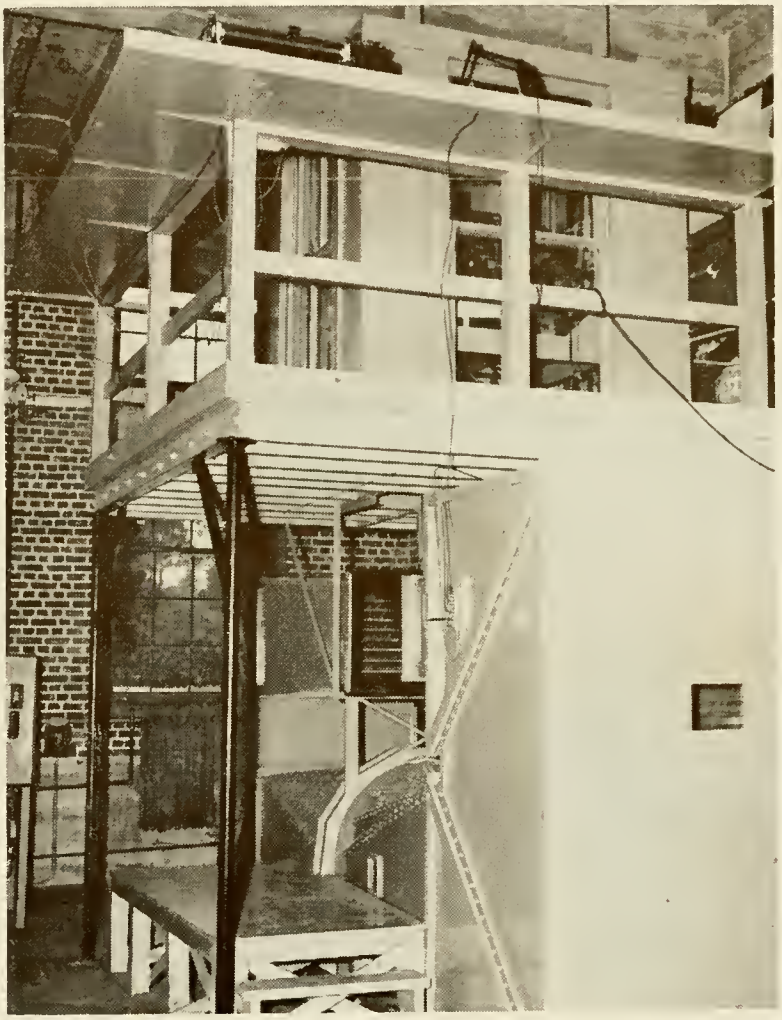
Aeronautical Engineering is a fascinating field of study, and one that presents unusual opportunities due to the tremendous developments resulting from the war. All indications point to wide use of air transportation for passengers and goods in the post-war era.

The laboratory facilities, in addition to the regular mechanical engineering equipment, include: A recirculation wind tunnel with an 18 x 30 inch throat and a jet speed of 100 m.p.h., with a six component balance system automatically controlled by special electronic circuits; a 6 x 12 inch Prandtl type tunnel with a jet velocity of 50 m.p.h.; a visual flow smoke tunnel for two dimensional air flow study.

The large tunnel is equipped with various models for aerodynamic study, including: A turbulence sphere, model building for wind pressure measurements, model aircraft, model wings, aerodynamic vibration model, pitot tube traverse mechanism and turbulence grids.

The instrument laboratory contains various aircraft instruments and equipment for calibrating them. Included are: tachometer, altimeter, bank and turn indicator, demonstration gyro, pressure gages, earth inductor compass, and magnetic compass.

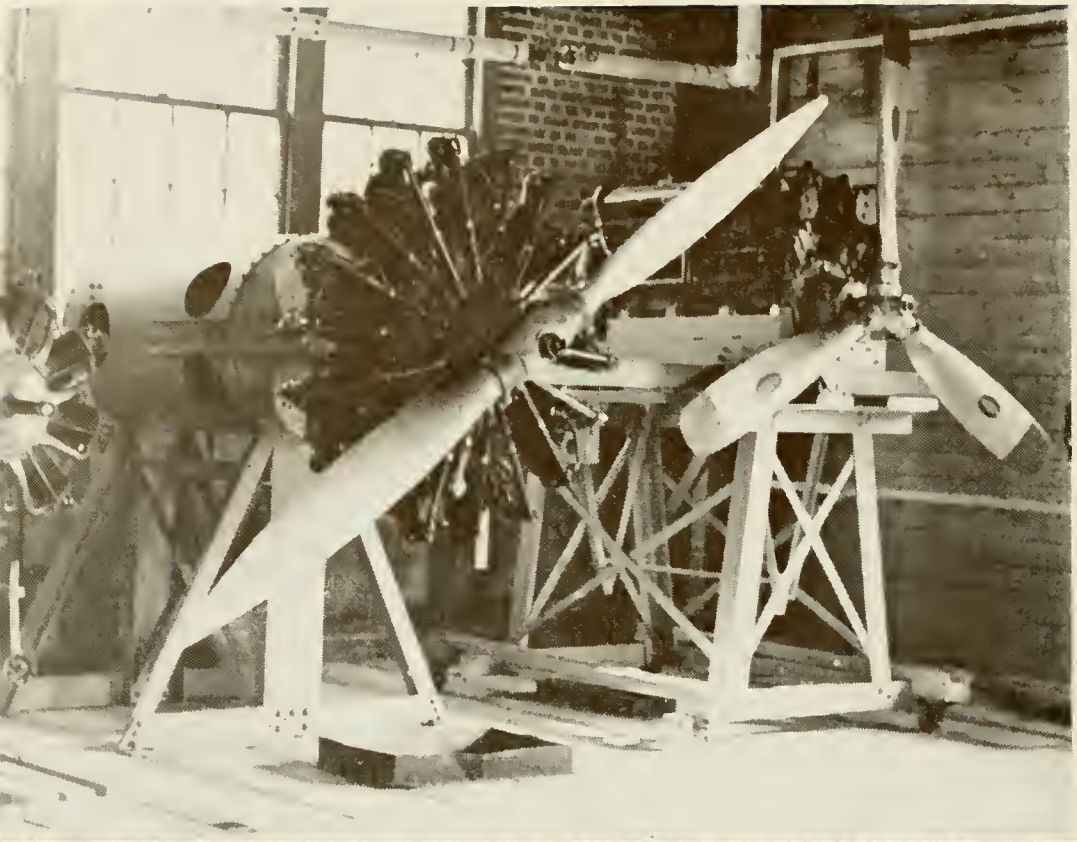
A file of motion picture films is available for study of manufacturing methods, basic theory and air flow. The University Library is a depository for the National Advisory Committee for Aeronautics reports and other U. S. Government publications. It contains practically all of the important reference books in this field.



Wind Tunnel and Instruments for Measuring Forces.

Two air fields are within five miles of the Campus and they provide facilities for actual flight testing of aircraft to measure performance characteristics. Photographic equipment is available for recording these performance tests.

Students who desire to qualify for private pilots' licenses may do so at a flying field near the University Campus.



(Upper) A Group of Airplane Engines for Student Study in our Laboratory.

(Lower) Engines on a Yankee Clipper being Tested and Serviced.

(Courtesy of Pan American Airways System.)

THE FLORIDA ENGINEERING AND INDUSTRIAL EXPERIMENT STATION

One of the most important functions of a university is to increase the store of knowledge as well as to teach students how to use information which is already known. Not only is the Florida Engineering and Industrial Experiment Station the research division of the College of Engineering, it is also the development laboratory of Florida's industries. Its function is to initiate and carry on projects in fields of engineering and in industrial development with special emphasis on new products and the establishment of new industries for Florida.

While the undergraduate student is not ready to do independent research work, he benefits in many ways from the research that is going on around him. He comes into contact with people who are leaders in their field and who are striving to advance the applications of science for better living for all. He learns that research work cannot be departmentalized. Modern industrial research requires the cooperation of all branches of engineering: chemical, civil, electrical, and mechanical. Many students will become interested in research as a result of the problems that they see being studied at the Station.

The most promising students will be offered an opportunity to assist in research work in the Station and to prepare themselves for graduate study. Industry is finding an ever increasing need for engineers with graduate training. Through the facilities of the Station, Florida industries will receive men with more advanced training and with original ideas on how to solve Florida's industrial problems.

The facilities of the Station include all the equipment of the College previously described in addition to special machines and instruments required for certain specific purposes. The same motor used for undergraduate laboratory study may be used by one of the research workers to power a new industrial application experiment. The same vacuum tube that is used to illustrate the basic principles of electronics may be utilized by a skilled research engineer to control the operation of a new type of air conditioning system. With all the equipment of the College at his disposal, the engineer finds himself in one of the finest research laboratories in the Southeast.

Some of the projects that are actively helping to foster new industries or to improve old industries are illustrated on these pages. These particular studies are typical of the type of research problems that are

now in progress. It is evident that there is opportunity for research for every engineer regardless of his field of specialization.

1. *Limerock Project.* Research work on limerock, one of our foremost mineral resources, is leading toward the construction of better roads and the use of limerock concrete for many types of construction work.

2. *Ceramics Research.* Florida kaolin has been used in the ceramics industry of the nation for many years. The work we are doing may result in the production of high grade china in this State.

3. *Sewage Treatment.* Research on the utilization of Florida sands in sewage treatment may enable many of our communities to install modern plants for the treatment of sewage at comparatively low cost.

4. *Wood Products.* Our pine forests have long been a source of turpentine and rosin obtained by tapping the trees. Distillation of the wood produces pine oil, pine tar and charcoal, all of which have important uses. Wood pulp is the basic material for our paper industry. Our research engineers are developing equipment to increase the yield of turpentine and rosin from the live tree and to utilize stumps and other wood wastes industrially.

5. *Utilization of Florida Hides.* Our growing live stock industry is producing hides that are being shipped to the north for the production of leather. Research projects to determine the feasibility of establishing tanneries in Florida and utilizing tannin extracted from our scrub oak are in full swing.

6. *Mechanization for Agriculture.* Mechanical devices are being developed for harvesting celery and watermelon seed and for closing crates for fresh fruits and vegetables.

7. *Corrosion Prevention.* Corrosion of metals costs the nation millions of dollars each year. The problem is especially serious in Florida due to the presence of salt spray in the air. Members of our research staff are studying means for reducing losses from corrosion.

8. *Mildew and Mold Prevention.* Mildew formation is another serious problem in Florida and this, too, is being carefully studied in our laboratories.

9. *Insecticides and Repellents.* DDT has been used by the Armed Forces for destroying many types of insects that are not only very annoying to man and animals, but often carriers of disease. We are attempting to incorporate DDT in paints in an effort to destroy flies and mosquitoes in dairies and other buildings.

10. *Drying of Tung Nuts.* One of the problems of our tung oil industry is the removal of moisture from the nuts so the oil can be extracted soon after the harvesting. Our engineers are busily engaged in developing equipment to accomplish this.

11. *Electronic and Ultra High Frequency Research.* It is well known that discoveries in the field of electronics have been of utmost importance in the war. Many of these discoveries will be applied to industry in the post-war years. Several projects toward that goal are being studied in our laboratories. They include the roasting of coffee, the location of hurricanes and television studies.

12. *Utilization of Peat.* Large quantities of peat are available in areas in the Everglades that are not suitable for agricultural purposes. Our engineers are studying this material with the hope that it may prove of value in the plastics industry or as a raw material for producing chemicals and fuel.

The following bulletins have been published and they can be secured from the Office of the Director, Florida Engineering and Industrial Experiment Station, University of Florida, Gainesville, Florida:

No. 1. "The Mapping Situation in Florida", by William L. Sawyer.

No. 2. "The Electrical Industry in Florida", by John W. Wilson.

No. 3. "The Locating of Tropical Storms by Means of Associated Static", by Joseph Weil and Wayne Mason.

No. 4. "Study of Beach Conditions at Daytona Beach, Florida, and Vicinity", by W. W. Fineren.

No. 5. "Climatic Data for the Design and Operation of Air Conditioning Systems in Florida", by N. C. Ebaugh and S. P. Goethe.

No. 6. "On Static Emanating from Six Tropical Storms and Its Use in Locating the Position of the Disturbance", by S. P. Sashoff and Joseph Weil.

No. 7. "Lime Rock Concrete — Part 1", by Harry H. Houston and Ralph A. Morgen.

No. 8. "An Industrial Survey of Hides and Skins in Florida", by William D. May.

No. 9. "Studies on Intermittent Sand Filtration of Sewage — Part I," by D. L. Emerson, Jr.

Student Societies and Activities

PROFESSIONAL SOCIETIES

Each department in the College of Engineering has a student chapter of the appropriate national professional society. These are the American Institute of Chemical Engineers, American Society of Civil Engineers, the American Institute of Electrical Engineers, the Society for the Advancement of Management and the American Society of Mechanical Engineers.

At all times the faculty of the College of Engineering is ready to confer with students, individually or collectively, depending on the nature of the problem. Here is a group—in this case the Benton Engineering Council—discussing a problem with the Dean of the College.

Each of these societies has its own student chairman and other officers. Meetings are held once or twice a month to promote good fellowship and to encourage the presentation of technical talks by the members. Guest speakers from industry are invited to address the societies at intervals throughout the year. Frequently, the student groups meet together as members of the Benton Engineering Society (named in honor of the

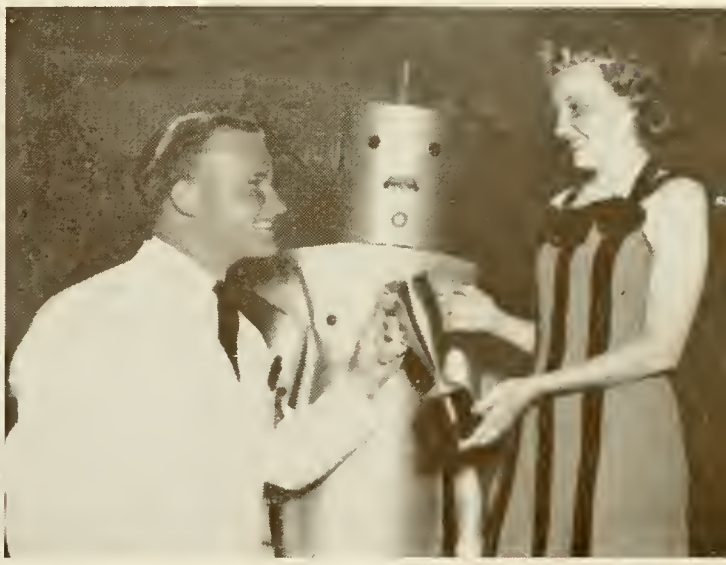
late Dean J. R. Benton), which is the student chapter of the Florida Engineering Society. The Benton Engineering Council is the governing body of all student engineering activities. The Council is composed of representatives from all of the professional societies.

SIGMA TAU

The Upsilon Chapter of Sigma Tau, a national honorary engineering fraternity, was established at the University of Florida in 1923. To be eligible to membership one must be a junior or senior student in the College of Engineering with a scholastic rating in the upper third of his class. Membership is based upon demonstration of those qualities which are regarded as being essential to engineering success; namely, scholarship, practicality and sociability.

Part of Social Event Sponsored by Sigma Tau.

Views at the Annual Engineers' Ball.



Sigma Tau endeavors to be of service to the College and to the University. It sponsors the Annual Engineers' Field Day and Ball, maintains a loan fund to assist worthy seniors who are in need of financial aid, and awards annually a medal to the sophomore in pre-engineering

training, who made the highest average in his scholastic work during his freshman year.

PHI KAPPA PHI

The primary object of Phi Kappa Phi is "to emphasize scholarship and character in the thoughts of college students", and thus to encourage scholarly attainment in its broadest sense. The prize of membership in the society is extended to all students of high attainment in all branches of study, whether in arts or literature, in religion or science, in agriculture or engineering, or in any other field of human endeavor, since, in the thought of this Society, all are of equal importance in so far as they embody a search of ultimate truth.

ENGINEERS' FIELD DAY AND BALL

A day which stands out in the memory of many alumni and which is participated in annually by both professors and students is Engineers' Field Day. The departmental societies compete with each other and with the University College engineers to amass the greatest number of points through competition in swimming, football, horse-shoes for professors, badminton for dates, boat races, baseball, etc. A day of sports is followed by the Engineers' Ball, where the Queen of Engineers is elected.

MILITARY TRAINING

The Reserve Officers' Training Corps of the University of Florida has merited for many years an "Excellent" rating by the United States War Department. This is the highest rating that can be obtained. Two years of military training are required. Subject to approval by the Military Department, a student may elect two years of advanced military training and qualify for a commission as Second Lieutenant in the U. S. Army Reserve.

FLORIDA UNION

Since the summer of 1936 the Florida Union has been the center of all student activities. Maintained entirely by the student body and governed by a board of managers, a joint committee of student and faculty members, the Union serves two purposes. It presents a broad program of recreation, entertainment, and cultural activities for the student body; and it provides a campus home for faculty, students, alumni, and friends of the University.

Recreational facilities are furnished not only by the game room which is completely equipped for checkers, chess, ping-pong, billiards and pool, but also by Camp Wauburg, a twenty-acre estate situated nine miles from Gainesville on the banks of a beautiful lake. The camp is available to students throughout the year for swimming, fishing, picnics, and other wholesome activities. The cultural program of the Union includes art exhibits, foreign motion pictures, musical programs, lectures, and the "good will" activities of the Institute of Inter-American Affairs, which is the headquarters of Central and South American students.

As campus host, the Union annually greets thousands of alumni who come from all parts of the country to renew old friendships and obtain news of former classmates. The offices of the student body, the Y.M.C.A., the Alumni Association, and the Publicity Department are located in the Union Building. A soda fountain and the bookstore in the annex offer attractive service at the most economical prices.

Every student will find a cordial welcome awaiting him at the Florida Union.

ATHLETICS

The type of athletic program undertaken by the Division of Athletics at the University of Florida compares favorably with that in other leading universities. The University of Florida, with eleven other colleges and universities in the states of Alabama, Georgia, Kentucky, Louisiana, Mississippi, and Tennessee, is a member of the Southeastern Conference and is guided by the policies and regulations of that conference.

The rules of the Conference permit member institutions to award scholarships to athletes. Awards are made in the form of board, rent, books and similar items, instead of cash, and may be renewed from year to year by those students whose records prove satisfactory. As a rule, the awards are made only to those who are financially unable to attend the University without assistance and whose standards of conduct and scholarship are worthy of consideration. The awarding of Athletic Scholarships is subject to the approval of the University Scholarship Committee. Further information may be secured by writing to the Dean of Students, who is Chairman of the Committee.

Intercollegiate athletics fall into two groups, generally known as major and as minor sports. In the major group are football, basketball, boxing, baseball, swimming, and track; and in the minor group, tennis, golf, and cross country. The equipment includes two baseball diamonds, four athletic fields, twelve handball courts, two indoor basketball courts,

twelve tennis courts, a large outdoor swimming pool, a concrete stadium with a seating capacity of 23,000, and a quarter-mile running track, providing permanent seats for approximately 1,500.

The Intramural Department encourages the entire student body to participate in organized athletic sports and wholesome recreation. It provides facilities for such competition and recreation; organizes and promotes competition among students, groups, and individuals; and fosters a spirit of fair play and sportsmanship among participants and spectators. The program of intramural activities includes the following sports: golf, swimming, horseshoes, touch football, basketball, boxing, diamondball, tennis, handball, track, shuffleboard, ping pong, and badminton.

University Gymnasium and Swimming Pool. Handball and Tennis Courts in Background.

The proper utilization of leisure time through recreation and play is splendidly expressed in this program. It is estimated that about seventy per cent of the students take part in intramural sports. There is a decided trend toward the expansion of recreational facilities for a large group of students as opposed to intense competition for a few.

SOCIAL FRATERNITIES

Twenty-one national social fraternities have chapters at the University. They are Alpha Gamma Rho, Alpha Tau Omega, Beta Theta Pi, Chi Phi, Delta Chi, Delta Tau Delta, Kappa Alpha, Kappa Sigma, Lambda Chi Alpha, Phi Delta Theta, Phi Gamma Delta, Phi Kappa Tau, Pi Kappa Alpha, Pi Kappa Phi, Pi Lambda Phi, Sigma Alpha Epsilon, Sigma Chi, Sigma Nu, Sigma Phi Epsilon, Tau Epsilon Phi, and Theta Chi. All maintain excellent chapter houses where wholesome recreational and social programs are planned and carried out with University approval.

The activities of the fraternities are controlled by the Interfraternity Conference, composed of two members from each chapter on campus. In addition to serving as a governing body, the Conference establishes rushing procedures and practices, and fosters a spirit of cooperation among the various fraternities.

STUDENT GOVERNMENT

Student government in the University of Florida is a cooperative organization based on mutual confidence between the student body and the faculty. Considerable authority has been granted the student body for the regulation and conduct of student affairs. The criterion in granting this authority has been the disposition of the students to accept responsibility commensurate with the powers granted them. Generally speaking, the fields of student activity include regulation of extra-curricular affairs and the administration of the Honor System.

The duties and responsibilities of self-government are divided among three branches: the Executive Council, exercising the legislative functions; the Honor Court, handling the judiciary problems; and the President, Vice-President, and Secretary-Treasurer, the executives, administering the affairs of student government. There are various subsidiary organizations which operate under charters granted by the Executive Council. This placing of important, varying responsibilities in the hands of the stndents themselves serves to provide a large number of individuals with practical training in the problems of government, and aids in the development of leadership. Many leaders of the State today obtained their early training as well as valuable experience by participating in activities of the student government at the University of Florida. As in all other forms of representative government, political parties play an important role in the determination of the personnel of student government. This responsibility to party and platform adds to the effectiveness and efficiency with which the officers carry on their work for the

best interests of the University. A Constitution created by the students themselves, and occasionally revised to meet changing conditions, regulates and prescribes the whole scope of student government.

THE HONOR SYSTEM

One of the finest tributes to the character of the students at the University of Florida is the fact that the student body is a self-governing group. In addition to permitting student legislation on questions of interest to members of the student body, execution of the laws passed, and the expenditure of student funds, the governing system of the University gives to the students the privilege of disciplining themselves through the Honor System.

Inaugurated by some of our leading educators in higher institutions of the nation and early adopted in some departments of the University of Florida, the Honor System was finally established in the entire University in 1914 as the result of student initiative. This plan, having met with the approval of all officials of the University, was given the sanction of the Board of Control, and student representatives were selected by the students to administer the System.

Among the basic principles of the Honor System are the convictions that self-discipline is the greatest builder of character and that responsibility is a prerequisite of self-respect. The success of the system is dependent upon the honor of each individual member of the student body in that the student is duty-bound to abide by the principles of the Honor Code, and is pledged to report to the Honor Court such violations of the code as are observed.

A major difference between the Honor System at the University of Florida and similar systems existing elsewhere is that most other universities and colleges have but one penalty—expulsion. It is felt here that different cases warrant different penalties, and considerable discretion is placed on the Court as to the nature of the penalty, which may range from severe reprimand to permanent expulsion. If the man is a freshman and it is his first offense, the Court is inclined to be lenient, for it feels that he has not had time to adjust himself to the Florida system after coming from a high school which may not have any type of honor system at all. It takes time and thorough preparation to establish an honor system anywhere on a workable basis, and even at its best it will not be one hundred per cent efficient. But it is always a decided asset and of practical value where established. In an all-around comparison with other honor systems, the University of Florida's was voted

the best in the United States at a recent National Student Federation Convention.

STUDENT PUBLICATIONS

Student publications at the University have long been respected parts of the campus scene. Supported entirely by student funds and advertising revenues, they are edited and managed by students under the supervision of the Board of Student Publications, composed of three appointed faculty members, a faculty chairman, and three undergraduate members.

The *Alligator*, a semi-weekly newspaper, has won favorable recognition in the publications field and in the Collegiate Press Association. It gives interesting accounts of student life and activities, and provides space for the expression of campus opinions on questions of general and current interest. The *Seminole*, which is the yearbook of the University, is a treasure house for memories of campus life. It is distributed near the end of the school year and is a handsome volume recording the history of the University for the year. Planned on a broad scope, it requires careful integration on the part of student editors, and provides valuable experience in the preparation of pictures, layouts, cutlines, and reading material. It is considered one of the best works of its kind and has won several awards for its designs and materials. The *Orange Peel*, a quarterly magazine, is a medium for the publication of stories, essays, poems, and other literary materials, and serves as a valuable outlet for campus literary talent. The *"F" Book* is published during the summer of each year and distributed among the students during registration the following fall. Its purpose is to serve as a guide for freshmen, and as a source of information upon which upperclassmen may draw in order to settle questions concerning the student body government.

All of these publications have fine records as trustworthy interpreters of student ideas, activities, and problems, and play an important part in the intellectual life of the campus. New students are cordially invited to try out for positions on their staffs.

FLORIDA PLAYERS

Florida Players represents the dramatic interests on the University campus. Now in its fourteenth year, the organization produces at least two three-act dramas a year, in addition to a bill or two of one-act plays. Participation in these plays is not limited to members of the group, but is open to anyone interested in dramatics. Membership is acquired after participation in two productions an actor, director, or producer.

That the organization and its activities may be a stepping-stone to something greater is evident from the fact that many of its members have become associated with Little Theater groups, metropolitan producing units, and Hollywood scenario departments. Several former members have won prominent places in the entertainment world. Among these are Sam Byrd, who played Dude Lester in one of the *Tobacco Road* productions, and who is now doing production work on Broadway; George Gunn, NBC drama director; Orville Anderson, announcer at WDBO in Orlando; and Dan Riss, chief sports announcer, WFAA, Dallas, Texas.

Living Accommodations and Expenses

UNIVERSITY RESIDENCE HALLS

Campus View Showing Some of the Residence Halls.

The University of Florida Residence Halls consist of five dormitories: Buckman, Thomas, Sledd, Murphree, and Fletcher. These dormitories are operated under the supervision of the University's Committee on Residence and the Office of the Director of Residence. Although rooms in the Residence Halls are partially furnished, students are required to provide their own bedding, towels, and toilet articles. Janitor and maid service includes the general care of rooms under the supervision of a

competent housekeeper. The conduct of students in the Hall is entirely in the hands of monitors who are responsible to the Director of Residence. Restrictions and regulations are kept at a reasonable minimum, and every effort is exerted to make residents as comfortable as possible.

The following types of rooms are available: single (one room equipped for one person), double (one room equipped for two persons), triple (one room equipped for three persons), two-room suite (separate study room and bedroom equipped for two persons), and a two-room suite for three (separate study room and bedroom equipped for three persons). In general, rooms are furnished with single beds, inner-spring mattresses, desks, chairs, waste-baskets, dressers, closets, roller shades, and built-in lavatories.* All rooms are steam heated during the winter months. Each dormitory is divided into sections of approximately thirty-two men per section, with a bathroom located on each floor of each section. The following schedule gives the rate per semester and the location of rooms:

HALL:	BUCKMAN		THOMAS		SLEDD		FLETCHER		MURPHREE	
Room Type	No. of Rooms	Rate	No. of Rooms	Rate	No. of Rooms	Rate	No. of Rooms	Rate	No. of Rooms	Rate
Single	13	$38.00	39	$38.00	6	$42.00	7	$45.00		
					3	$40 00†	5	$40.00†		
Double	23	$32.00	38	$32.00			14	$40.00		
			12	$30.00			6	$37.50†	15	$37.50†
Triple	2	$24.50	3	$30.00						
			22	$24.50						
2-Room Suite for two					56	$40.00	63	$41.00	133	$41.00
					21	$34.00†	22	$40.00†	30	$40.00†
2-Room Suite for Three	22	$24.50	10	$24.50	8	$36.00	4	$37.00	8	$37.00
									2	$36.00†

† Fourth floor rooms.

Students desiring to reserve a dormitory room at the University of Florida should address the Director of Residence for an application for room reservation and information as to which rooms are available. Each applicant is required to post a room reservation fee of $10.00 before

* The $24.50 rooms in Buckman and Thomas and the $30.00 double rooms in Thomas do not have lavatories in the rooms.

an assignment can be made. As far as possible, all applicants will be given advance notice of the location of their room assignments, the date when they may occupy the room, the latest date for cancellation, and other pertinent information. Rooms are rented either by the school year or the semester, unless otherwise arranged for through the Office of the Director of Residence. All rents are due and payable in advance at the beginning of the semester. The room reservation fee is not a payment on rent but is a separate deposit which is refundable after residents have vacated their rooms and have been checked out of the dormitories.

CAMPUS BOARD

The University Cafeteria furnishes excellent dining facilities for students. Its equipment is modern and complete, and its service is uniformly courteous and efficient. Carefully planned menus, featuring fresh vegetables, fruits, and dairy products the year round, are prepared under the direction of a graduate dietitian. A wide selection of wholesome foods, sold at actual cost, enables students to choose those which appeal to their individual tastes. The Soda Fountain, operated in conjunction with the Cafeteria, specializes in candies, soft drinks, and light lunches, and provides a pleasant gathering place for students between classes.

OFF-CAMPUS LIVING ACCOMMODATIONS

In addition to campus facilities, students will find excellent living accommodations near the University. Board and rooms are available in private houses at very reasonable rates. Ordinarily the rates are a little lower when students board in the homes where they room. Those who prefer to take their meals at lunchrooms and restaurants have access to a wide variety of accommodations within easy walking distance. All the social fraternities at the University have living quarters for at least some of their students. Many also maintain dining rooms. Costs are approximately the same as for other off-campus accommodations.

To assure students clean and comfortable living quarters, private off-Campus rooms are periodically inspected and listed. Lists of approved houses may be obtained from the Office of the Dean of Students.

COOPERATIVE LIVING ORGANIZATION

The Cooperative Living Organization is designed to serve University students of limited income. The qualifications for membership include

a maximum income of $25.00 a month, scholastic ability, and references of good character. The Organization is managed entirely by its members and their representatives. Through living together in a spirit of co-operation, members are enabled not only to attend the University, but to acquire the art of living with people. Students desiring membership should address the CLO manager at 237 North Washington Street, Gainesville.

EXPENSES

The annual cost of attendance at the University of Florida compares very favorably with that at other universities. The accompanying table provides an estimate of expenses and is designed to assist students in making up their budget for an academic year of nine months.

Type of Expense	Low	High
General Fees	$100*	$100*
Room and Board	360	450
Books and Supplies	30	50
Laundry and Dry Cleaning	25	35
Estimated total expense for nine months	$515	$635

* Students who are not residents of Florida should add $200 to this amount to cover non-Florida fee.

Student Aid

SCHOLARSHIPS AND LOAN FUNDS

Since the University of Florida is a comparatively young institution, it has not accumulated many cash scholarships and loan funds. Many of those which are available are administered directly by the donors. However, the Committee on Sholarships and Loans, of which the Dean of Students is chairman, collects all information relative to vacancies, value, the basis of awards, and other facts concerning scholarships. In some instances, the Committee has been given the authority to make awards without consulting the donors.

While the University as an institution does not have a loan fund of any kind, there are a few loan funds available which are administered by students and outside organizations. The largest of these is the Florida Educational Rotary Loan Fund operated by the Rotary Clubs of the State of Florida. There is also a small fund handled by the Lions Clubs of the State which is available for Agricultural students. The Tolbert Memorial Student Loan Fund is administered by a student committee as an emergency fund. Its purpose is to help students meet room and board payments and the costs of books and other essentials. The Tolbert Fund is available to students of good conduct, who have a scholastic average of C or better. The University has prepared a bulletin listing and describing all its Scholarships and Loan Funds. Information concerning employment opportunities is included. Copies of this bulletin are available upon request. Address the Registrar or the Dean of Students.

A friend of the College of Engineering who wishes to remain anonymous has made available the sum of $1,000 to be used as a revolving fund to assist needy students. This fund is used under the following conditions:

(a) Loans are made only to juniors and seniors in the College of Engineering

(b) Preference is given to seniors who are worthy students and who are unable to complete their college work without financial aid.

(c) In judging the worthiness of a student no consideration is given for prominence in athletics or similar extra-curricular activities.

(d) The fund is administered by the Dean of the College of Engineering.

In June, 1945, the Miami Section of the American Society of Civil Engineers contributed $50 to be used as a student loan fund. This amount has been deposited with the other loan funds of the College for the present.

The loan funds of the College are known as the Murphree and Benton Engineering Loan Funds in memory of the late A. A. Murphree, former President of the University, and the late J. R. Benton, former Dean of the College of Engineering.

STUDENT EMPLOYMENT

The University takes an active interest in capable students who require financial assistance while attending college. Through its Committee on Self-Help, it makes an earnest effort to assign students work for which they are qualified by training and experience. In awarding positions, the Committee gives careful consideration to the scholarship and financial status of applicants. It has consistently ruled that, need being equal, students of superior academic achievement shall be given preference.

In normal times, over half of the students at the University earn part of their expenses through part-time employment. Many work on the campus as waiters, typists, and student assistants in various departments, while others secure employment with local business firms and industries. A few obtain board and room in fraternities and private homes in return for services rendered. In general it is recommended that no student should attempt to earn more than half of his expenses if he expects to carry a full academic load.

All undergraduates employed at the University must maintain an average of C or better and be certified as *eligible for employment.* "Certificates of Eligibility" are available in Room 3, Language Hall. Inquiries concerning student employment and requests for application forms should be addressed to the Office of the Dean of Students. A bulletin outlining the policies governing student employment has been prepared, and may be obtained from the Registrar.

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